



Military Law Review

**THE SEVENTEENTH ANNUAL KENNETH J.
HODSON LECTURE: GEORGE MASON, JOHN
MARSHALL, AND THE CONSTITUTION**

Chief Justice Harry L. Carrico

**THE DISPOSITION OF THE CURRENT
STOCKPILE OF CHEMICAL MUNITIONS AND
AGENTS**

Major Lawrence E. Rouse

**NECESSITY AND THE MILITARY JUSTICE
SYSTEM: A PROPOSED SPECIAL DEFENSE**

Captain Eugene R. Milhizer

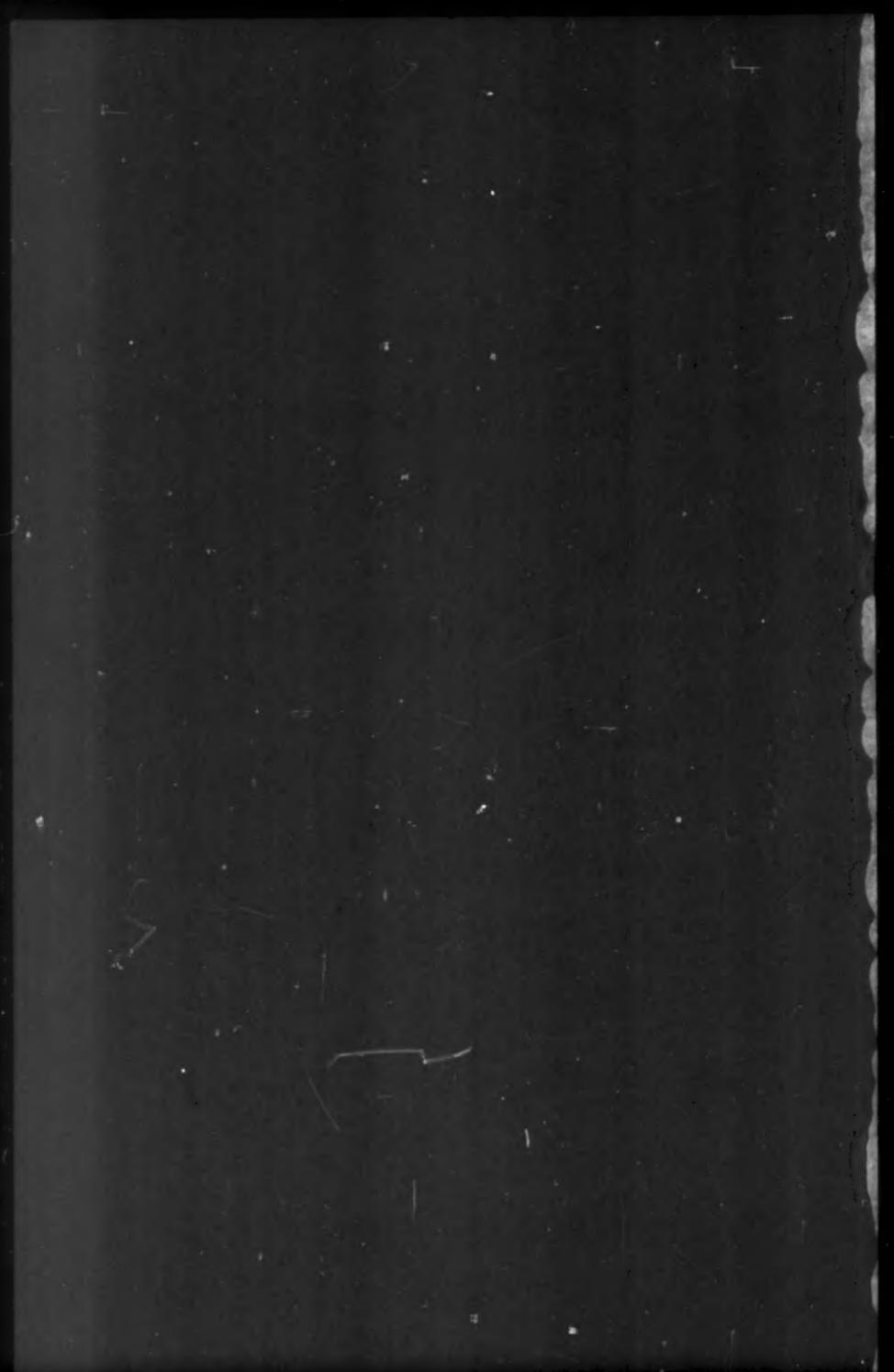
**THE CONGRESSIONAL RESPONSE TO
*GOLDMAN V. WEINBERGER***

First Lieutenant Dwight H. Sullivan

CUMULATIVE INDEX, VOL. 112-121

Volume 121

Summer 1988



Pamphlet
No. 27-100-121

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D.C., Summer 1988

MILITARY LAW REVIEW—VOL. 121

The *Military Law Review* has been published quarterly at The Judge Advocate General's School, U.S. Army, Charlottesville, Virginia, since 1958. The *Review* provides a forum for those interested in military law to share the products of their experience and research and is designed for use by military attorneys in connection with their official duties. Writings offered for publication should be of direct concern and import in this area of scholarship, and preference will be given to those writings having lasting value as reference material for the military lawyer. The *Review* encourages frank discussion of relevant legislative, administrative, and judicial developments.

EDITORIAL STAFF

CAPTAIN ALAN D. CHUTE, *Editor*
MS. EVA F. SKINNER, *Editorial Assistant*

SUBSCRIPTIONS: Private subscriptions may be purchased from the Superintendent of Documents, United States Government Printing Office, Washington, D.C. 20402. Publication exchange subscriptions are available to law schools and other organizations that publish legal periodicals. Editors or publishers of such periodicals should address inquiries to the Editor of the *Review*.

Inquiries concerning subscriptions for active Army legal offices, other Federal agencies, and JAGC officers in the ARNGUS not on active duty should be addressed to the Editor of the *Review*. The editorial staff uses address tapes furnished by the U.S. Army Reserve Personnel Center to send the *Review* to JAGC officers in the USAR; Reserve judge advocates should promptly inform the Reserve Personnel Center of address changes. Judge advocates of other military departments should request distribution from their service's publication channels.

CITATION: This issue of the *Review* may be cited as 121 Mil. L. Rev. (number of page) (1988). Each quarterly issue is a complete, separately numbered volume.

POSTAL INFORMATION: The *Military Law Review* (ISSN 0026-4040) is published quarterly at The Judge Advocate General's School, U.S. Army, Charlottesville, Virginia 22903-1781. Second-class postage paid at Charlottesville, Virginia and additional mailing offices. **POSTMASTER:** Send address changes to *Military Law Review*, The Judge Advocate General's School, U.S. Army, Charlottesville, Virginia 22903-1781.

INDEXING: The primary *Military Law Review* indices are volume 91 (winter 1981) and volume 81 (summer 1978). Volume 81 included all writings in volumes 1 through 80, and replaced all previous *Review* indices. Volume 91 included writings in volumes 75 through 90 (excluding Volume 81), and replaced the volume indices in volumes 82 through 90. Volume indices appear in volumes 92 through 95, and were replaced by a cumulative index in volume 96. A cumulative index for volumes 97-101 appears in volume 101, and a cumulative index for volumes 102-111 appears in volume 111. The current issue, volume 121, contains a cumulative index for volumes 112-121.

Military Law Review articles are also indexed in *A Bibliography of Contents: Political Science and Government; Legal Contents (C.C.L.P.); Index to Legal Periodicals; Monthly Catalog of United States Government Publications; Index to U.S. Government Periodicals; Legal Resources Index*; three computerized data bases: the *Public Affairs Information Service, The Social Science Citation Index*, and *LEXIS*; and other indexing services. Issues of the *Military Law Review* are reproduced on microfiche in *Current U.S. Government Periodicals on Microfiche*, by Infodata International Inc., Suite 4602, 175 East Delaware Place, Chicago, Illinois 60611.

MILITARY LAW REVIEW
TABLE OF CONTENTS

<i>Title</i>	<i>Page</i>
The Seventeenth Annual Kenneth J. Hodson Lecture: George Mason, John Marshall, and the Constitution Chief Justice Harry L. Carrico	1
The Disposition of the Current Stockpile of Chemical Munitions and Agents Major Lawrence E. Rouse	17
Necessity and the Military Justice System: A Proposed Special Defense Captain Eugene R. Milhizer	95
The Congressional Response to <i>Goldman v. Weinberger</i> First Lieutenant Dwight H. Sullivan	125
Cumulative Index, Vols. 112-121	153

SUBMISSION OF WRITINGS: Articles, comments, recent development notes, and book reviews should be submitted typed in duplicate, double spaced, to the Editor, *Military Law Review*, The Judge Advocate General's School, U.S. Army, Charlottesville, Virginia 22903-1781. Authors should also submit a 5 1/4 inch computer diskette containing their articles.

Footnotes also must be typed double spaced and should appear as a separate appendix at the end of the text. Footnotes should be numbered consecutively from the beginning to end of a writing, not chapter by chapter. Citations should conform to the *Uniform System of Citation* (14th ed. 1986), copyrighted by the *Columbia*, *Harvard*, and *University of Pennsylvania Law Reviews* and the *Yale Law Journal*, and to *Military Citation* (TJAGSA 4th ed. 1988) (available through the Defense Technical Information Center, ordering number AD B088204). Masculine pronouns appearing in the text will refer to both genders unless the context indicates another use.

Typescripts should include biographical data concerning the author or authors. This data should consist of grade or other title, present and immediate past positions or duty assignments, all degrees, with names of granting schools and years received, bar admissions, and previous publications. If the article was a speech or was prepared in partial fulfillment of degree requirements, the author should include date and place of delivery of the speech or the source of the degree.

EDITORIAL REVIEW: The Editorial Board of the *Military Law Review* consists of the Deputy Commandant of The Judge Advocate General's School; the Director, Developments, Doctrine, and Literature Department; and the Editor of the *Review*. They are assisted by instructors from the teaching divisions of the School's Academic Department. The Board submits its recommendations to the Commandant, TJAGSA, who has final approval authority for writings published in the *Review*. The *Military Law Review* does not purport to promulgate Department of the Army policy or to be in any sense directory. The opinions and conclusions reflected in each writing are those of the author and do not necessarily reflect the views of The Judge Advocate General or any governmental agency.

The Board will evaluate all material submitted for publication. In determining whether to publish an article, note, or book review, the Board will consider the item's substantive accuracy, comprehensiveness, organization, clarity, timeliness, originality, and value to the military legal community. There is no minimum or maximum length requirement.

When a writing is accepted for publication, a copy of the edited manuscript will generally be provided to the author for prepublication approval. Minor alterations may be made in subsequent stages of the publication process without the approval of the author. Because of contract limitations, neither galley proofs nor page proofs are provided to authors.

Reprints of published writings are not available. Authors receive complimentary copies of the issues in which their writings appear. Additional copies are usually available in limited quantities. They may be requested from the Editor of the *Review*.

BACK ISSUES: Copies of recent back issues are available to Army legal offices in limited quantities from the Editor of the *Review*.

Bound copies are not available, and subscribers should make their own arrangements for binding if desired.

REPRINT PERMISSION: Contact the Editor, *Military Law Review*, The Judge Advocate General's School, U.S. Army, Charlottesville, Virginia 22903-1781.

THE SEVENTEENTH ANNUAL KENNETH J. HODSON LECTURE:

GEORGE MASON, JOHN MARSHALL, AND THE CONSTITUTION

by Chief Justice Harry L. Carrico
Supreme Court of Virginia

The Kenneth J. Hodson Chair of Criminal Law was established at The Judge Advocate General's School on June 24, 1971. The chair was named after Major General Hodson, who served as The Judge Advocate General from 1967 to 1971. General Hodson retired in 1971, but was immediately recalled to active duty to serve as Chief Judge of the Court of Military Review. He served in that position until March 1974. General Hodson served over thirty years on active duty. During that time, he was active in the American and Federal Bar Associations, and he authored much of the federal military justice legislation existing today. He was a member of the original staff and faculty of The Judge Advocate General's School in Charlottesville, Virginia. When the JAG Corps was activated as a regiment in 1986, General Hodson was selected as the Honorary Colonel of the Corps.

On March 24, 1988, the Chief Justice of the Supreme Court of Virginia, Harry L. Carrico, delivered the seventeenth Kenneth J. Hodson Lecture. Chief Justice Carrico received his J.D. degree in 1942 from George Washington University, where he also was an undergraduate. From 1943 to 1945 and from 1946 to 1951, he was the Judge of the Trial Justice Court (now General District Court) in Fairfax County. From 1945 to 1946, he served in the United States Naval Reserve. He entered private practice in 1951, but in 1956 returned to the judiciary as Judge, Sixteenth Judicial Circuit. In 1961 he became a Justice of the Supreme Court of Virginia. He became Chief Justice of the Court on February 1, 1981. Chief Justice Carrico is a member of the Board of Directors and First Vice President, Conference of Chief Justices; a member of the Board of Directors of the National Center for State Courts; and a member of the Committee on Federal-State Jurisdiction, Judicial Conference of the United States. Chief Justice Carrico's outstanding service has been recognized by the awarding of honorary Doctor of Laws degrees by the University of Richmond (1973) and George Washington University (1987).

I. INTRODUCTION

I feel highly honored to be asked to deliver the 17th Kenneth J. Hodson Lecture in Criminal Law. At first glance, my subject would appear to have little to do with criminal law, for I intend to talk about George Mason, John Marshall, and the Constitution. I submit, however, that it would be well for those of us engaged in administering the criminal law to pause for a moment, step back from our absorbing tasks, and join our countrymen in celebrating the bicentennial of the Constitution. After all, it is to the Constitution that we must look for the basic source and inherent strength of the principles and procedures of our criminal law.

True, we borrowed from the English common law many of the definitions and components of offenses tried in our civilian and military courts every day. But the protections and guarantees engrafted upon the prosecution of those offenses as a result of the adoption of the Constitution make our system of criminal law unique among the legal systems of the world. We should be proud of our system and grateful to the men whose lives were intertwined with the Constitution both in its formulation and its implementation.

As you know, we have been celebrating the bicentennial of the Constitution for some time now. The outstanding events of last year were intended to mark the 200th anniversary of the *signing* of the great document. This year we celebrate the *ratification* of the Constitution. And, of course, the celebration will continue until 1991, when we will commemorate the adoption of the Bill of Rights. You also know, of course, that Chief Justice Burger retired from the Supreme Court to devote his full time and attention to chairing the Bicentennial Commission. He is so deeply involved in the work of the Commission that his efforts amount almost to a crusade. It is his goal, and should be ours, to generate renewed appreciation of and respect for the Constitution. We cannot achieve this goal, though, if we do no more than mark significant dates in constitutional history or eulogize the men who signed their names to the great document. It must be our effort throughout the period of celebration to promote a better understanding of what the Constitution *means* and a greater appreciation of its effect upon the lives of all our citizens.

II. THE CONSTITUTION AS A LIVING DOCUMENT

And how do we discern the Constitution's meaning? I suggest we need look no further than the preamble itself. Have you read the

preamble lately? Every American should know it by heart. Listen for a moment:

We the People of the United States, in Order to form a more perfect Union, establish Justice, insure domestic Tranquility, provide for the common defence, promote the general Welfare, and secure the Blessings of Liberty to ourselves and our Posterity, do ordain and establish this Constitution for the United States of America.

Beautiful words, aren't they? But they are working words, too. And therein, to me, lies the true meaning of the Constitution: it is a living document, working every day for all Americans, protecting their rights and preserving their freedom.

Let's think a little longer about some of the words in the preamble. The first three are "We the People." Can there possibly be three more important words in democracy's vocabulary? They are words of strength, of determination, the expression of a common and indestructible bond sufficient to nurture the infant nation's survival and support its rise to the leadership of the free world.

The next major phrase is "in Order to form a more perfect Union." The framers did not envision a completely perfect union. The framers were realistic enough to know that perfection always remains just beyond human grasp. But they certainly wanted a union more perfect than existed under the Articles of Confederation and one even more perfect than any yet devised by the mind of man. The fact we now observe the 200th anniversary of our Union's formation is proof indeed of the framer's success.

And we of all people will want to recall the words, "establish Justice." It should be a source of pride for all of us engaged in administering the country's legal system to know that the framers listed the need to establish justice second only to the necessity to form a more perfect union. The framers perceived that a successful pursuit of justice necessarily would involve constant adherence to a rule of law, and to this end they provided in article VI that the "Constitution, and the Laws of the United States which shall be made in Pursuance thereof . . . shall be the supreme Law of the Land." Two centuries later, despite the strain of such critical events as a presidential resignation, the Constitution remains supreme.

Next, we come to a trio of clauses: "to . . . insure domestic Tranquility, provide for the common defence, [and] promote the general Welfare." The framers knew that the nation could not succeed without a calm citizenry, a strong national defense, and a government acting

for the good of the people as a whole. They sought to make the Constitution the cement that would hold our society together in safety while it flourished for the common good of all. Though subject to severe stress in periods of great crisis, the cement has held and grown even stronger.

Then, there are the wonderful words, "to . . . secure the Blessings of Liberty to ourselves and our Posterity." Can any among us seriously question that the Constitution has succeeded in securing the blessings of liberty to all our people? Can any of us really doubt that "Liberty and justice for all" is more than a motto but a way of life in this great country of ours? The answer to both questions, of course, is a resounding "no"! And we must never forget that we enjoy the blessings of liberty because two hundred years ago this nation ratified a piece of paper whose preamble stated that "We the People . . . do ordain and establish this Constitution for the United States of America."

In truth, it is a remarkable document whose birthday we celebrate. Most of the nations of this world live under constitutions that are less than thirty years old. Yet ours has survived for two whole centuries and gives promise of being around for at least two hundred years more.

To what does the Constitution owe its longevity? Some scholars contend that the Constitution is durable because it is rooted in the will of the people. Others argue that the Constitution has survived so long because it derives from a higher law.

This latter concept is predicated on the view that there are certain principles which prevail because of their eternal value, regardless of what political force happens to be exercising authority at any given moment. An ancient philosopher expressed this idea when he said, "True law is right reason, harmonious with nature, diffused among all, constant, eternal." He also said: "We are born for justice, and right is not the mere arbitrary construction of opinion, but an institution of nature." A decade before the Philadelphia Convention of 1787 ever convened, Thomas Paine called for a conference to frame what he termed a "Continental Charter," which he envisioned as reflecting a higher law. He said, "Let [the Charter] be brought forth [and] placed in the divine law, the word of God: Let a crown be placed thereon, by which the world may know, that so far as we approve of monarchy, . . . in America the law is king."

But, in my opinion, these views are much too abstract to explain the endurance of the Constitution. To me, the Constitution has endured because, as I mentioned a moment ago, it is a living document, working every day for every American. How does the Constitution

work for us? Remember the part of the preamble which says that one of the reasons for the Constitution's adoption was to secure "The Blessings of Liberty." What this means is that, as Americans, our freedom is assured and our rights are guaranteed.

How wonderful is our freedom! How great are our rights! We can assemble, as we do here this morning, without anyone's leave. We can say what we want, write as we wish, and worship the way we please, all without fear of governmental reprisal. We can select our own leaders, petition for the redress of grievances, remain free from unreasonable searches and seizures, stand upon a presumption of innocence, demand trial by jury, and insist upon the aid of counsel, all as a matter of course. And we take for granted that we can travel where we will, work at what we might, and marry whom we choose. In short, we truly live in freedom. All this is true because, although born in rebellion, our freedom has matured and flourished under the protection, first, of military might, and, second, of a rule of law. And it is the Constitution which, in word and in fact, has made this rule of law "the supreme Law of the Land."

III. THE INFLUENCE OF GEORGE MASON AND JOHN MARSHALL

But how did the Constitution achieve this position of preeminence? It was not always an object of reverence and respect. Indeed, in its infancy, it was an object of ridicule, seemingly destined for oblivion. The simple truth is that while James Madison, with his authorship, may have given the Constitution a body, George Mason, with his insistence upon a Bill of Rights, gave it a heart and John Marshall, with the use of his brilliant analytical mind, gave it a soul. Both men helped make it the greatest political document the world has ever known.

Therefore, as we celebrate the bicentennial of the Constitution, we should also pay homage to George Mason and John Marshall, for without their tremendous contributions to constitutional history, we might have nothing to celebrate today.

A. GEORGE MASON

Being a Virginian, I am, of course, extremely proud of the part the Virginia delegates played in the Constitutional Convention of 1787. The roles of George Washington and James Madison are well known, but I think George Mason of Gunston Hall in Fairfax County, though a lesser-known delegate, is due special bicentennial recognition.

Far too few Americans realize the significance of George Mason's contribution to American independence and the establishment of constitutional government in this country. Probably even fewer could tell where he lived during the period of his greatest achievement. Considering what his life meant not only to Americans, but also to those beyond our shores, George Mason is a near-forgotten man in history.

I will not recite a biographical sketch of Mason. Instead I shall focus upon two major documents he authored at crucial points in our evolution from thirteen British colonies to an independent nation, specifically the Fairfax Resolves and the Virginia Declaration of Rights.

With these documents, Mason engraved the names of Fairfax County and Virginia forever on the record of the American independence movement, and, with both documents, he put his personal stamp indelibly upon the course of history. Thomas Jefferson said of Mason that he was "of the first order of greatness." In the Resolves and the Declaration, Mason's genius shines through with unquestionable clarity.

Mason disdained the political life or anything else that would take him away from Gunston Hall and his family. Yet, he could never remain completely aloof from the call to public service. Inevitably, he was drawn into service as a member of the House of Burgesses, later as a member of the House of Delegates, as a member of the Virginia Convention of 1776, as a delegate to the Constitutional Convention of 1787, and as a member of the Virginia Convention of 1788 on the ratification of the Constitution.

My story begins, however, in Boston, Massachusetts. In December 1773, a band of Bostonians masquerading as Indians boarded a British ship in Boston harbor and threw overboard 340 chests of tea belonging to the British East India Company. Parliament responded with enactment of the Boston Port Bill, which effectively closed Boston harbor to all trade.

The closing of the port brought swift and positive reaction up and down the Atlantic seaboard, evidenced both by the supplying of food and money to the beleaguered Bostonians and by the stiffening of resistance to British rule. In Virginia freeholders gathered in county meetings and chose representatives for an August 1774 convention in Williamsburg of the membership of the then-dissolved House of Burgesses.

On July 14, 1774, Fairfax freeholders, meeting at the county courthouse in Alexandria, chose George Washington and Charles Broad-

water to represent the county at the Williamsburg Convention. Following this election, the meeting was adjourned until July 18, at which time the assembly would consider instructions to its new delegates and measures designed to persuade the British to redress colonial grievances.

On July 17, Mason rode from Gunston Hall to Mount Vernon and spent the night there. He and Washington undoubtedly discussed the paper Mason intended to present to the freeholders the next day, and the paper as presented may have contained Washington's ideas. However, the document was written entirely in Mason's hand and bore his literary style.

Washington and Mason rode together into Alexandria the next day for the meeting of the Fairfax freeholders. With Washington presiding, the meeting adopted what Mason himself styled the "Fairfax County Resolves." The freeholders directed Washington and Broadwater to submit the resolutions to the Williamsburg convention in August "as the Sense of the People of this County, upon the Measures proper to be taken in the present alarming and dangerous Situation of America."

Washington conveyed the Fairfax Resolves to Williamsburg personally, and they were submitted, along with resolutions from other counties, to the August convention. The Resolves formed the framework of the Virginia Association of 1774, adopted by the convention as an effort to halt exportation and importation to and from Great Britain.

Washington then took the Resolves with him to the meeting of the first Continental Congress in Philadelphia. In revised form, the resolutions appeared as the Continental Association, adopted by the Congress on October 20, 1774, a measure again directed toward the enforcement of nonimportation and nonexportation.

Notable by their verbosity, the Resolves as Mason originally conceived them consisted of twenty-four numbered paragraphs. Time does not permit me to review them all, although I commend them to you for future reading.

Possibly the most significant was the second resolution, which stated that an important part of representative government is "the fundamental Principle of the People's being governed by no Laws, to which they have not given their Consent, by Representatives freely chosen by themselves." By this, Mason pointed out that the Townsend Acts, the Boston Port Bill, and similar laws of Parliament denied the colonists the right to be heard. In the third resolution, he forcefully

stated that "[our] own Provincial Assemblies or Parliaments," rather than the British Parliament, had the right to exercise legislative power. In this resolution, Mason gave formal recognition to the theory that the American colonies could never be adequately represented in the British Parliament.

Reviewed in the entirety, the Resolves left no stone unturned. Taxation without representation was viewed as tantamount to slavery, trials by jury were applauded so long as jurisdiction remained within the colonies, the Boston Port bill was condemned, and the issues of nonimportation and nonexportation were dealt with effectively.

The seventeenth resolution deserves a special note. It sought a suspension of slave importation "during [the] present Difficulties and Distress", and indeed, "an entire Stop for ever . . . to such a wicked cruel and unnatural trade."

While the Resolves cannot be characterized as a major literary contribution, there can be no doubt that the document represented a giant step in the colonists' onward march toward independence. Although the language of the resolves did not state the colonists' case in language quite so dramatically as the words employed by Patrick Henry at St. John's Church, they made clear the colonial patriots' position "that from our Sovereign there can be but one Appeal," apparently meaning open rebellion. At the time of their writing, the Resolves were "the strongest documented stand against British oppression to be formally and officially stated."

History records that George III did not heed the freeholders' plea; hence, the rebellion presaged by the Resolves became inevitable. As one commentator has observed, "The combustible materials were collected that spring [of 1774] in Fairfax County, ready for that first spark struck on 19 April 1775 near Boston."

Mason's authorship of the Virginia Declaration of Rights had an even more momentous effect upon the cause of liberty, but his contribution in this regard has been inadequately credited. As one observer stated, "Few documents have ever had such a wide impact upon society and yet brought so little public recognition for the principal author as the Virginia Declaration of Rights."

The Declaration had its genesis in the Continental Congress. Meeting in Philadelphia, the Congress, early in May 1776, advised each colony to assume sovereign powers adopting new forms of government where necessary "sufficient to the exigencies of their affairs." Reacting with amazing speed, the Virginia Convention met in Williamsburg on May 15 and appointed a committee to draft a bill of rights and a constitution for Virginia.

Fairfax county freeholders elected George Mason as their representative to the Virginia Convention. Arriving in Williamsburg on May 18, just recovered from what he called a "smart fit of the Gout," Mason was appointed to the drafting committee. He complained that the committee was, "according to custom, overcharged with useless Members."

Mason feared the committee's work would be hampered and delayed by "a thousand ridiculous and impracticable proposals." Happily, he was proved wrong. Taking the lead in the committee's endeavors, Mason produced a draft of a declaration of rights for the committee as early as May 24. With minor changes the declaration was adopted without dissent by the convention on June 12. Thus, in less than a month, one of the major documents in world history had been proposed, prepared, and adopted unanimously by a body composed of some of the most independent thinkers of the time.

The Declaration represents a comprehensive exposition of the natural rights of mankind. From the opening statement that "all men are by nature equally free and independent" to the closing assurance that "all men are equally entitled to the free exercise of religion," the Declaration enunciated the full panoply of rights we have come to regard as commonplace. Interspersed were provisions dealing with the establishment and alteration of governments, the nature of public service, and the role of the military in a free society.

One paragraph of the Declaration will serve to display the notability of the entire writing, not only as a political document but also as a literary work. The fifteenth paragraph states that "[N]o Free Government, or the Blessings of Liberty can be preserved to any people, but by a firm adherence to justice, moderation, temperance, frugality, and Virtue and by frequent Recurrence to Fundamental Principles."

Virginia had set the pattern for things to come. In less than a month after its adoption in Williamsburg, the Declaration would find itself in Thomas Jefferson's hands in Philadelphia. He would write in the Declaration of Independence: "We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain inalienable rights, that among these are Life, Liberty, and the Pursuit of Happiness." The words may have been somewhat different, but the idea and the ideal were the same that Mason had enunciated in his Declaration of Rights, and, indeed, in his Fairfax Resolves.

In August 1776, Pennsylvania adopted a constitution that contained a declaration of rights that was taken almost verbatim from

Virginia's. Then, in turn, ten of the remaining states adopted constitutions either containing separate bills of rights or incorporating rights statements, all following Mason's model in his Virginia Declaration of Rights.

It was upon the federal Constitution, however, that the Virginia Declaration would have its most profound effect. As you know, and to Mason's great dismay, the Constitutional Convention of 1787 did not include a bill of rights in the Constitution it proposed for ratification by the states. Because the Constitution lacked a bill of rights and permitted continuance of the slave trade, Mason refused to sign the document and opposed its ratification by Virginia.

In the state conventions called to consider ratification of the Constitution, strong sentiments were expressed for the addition of a bill of rights. A number of states, including Virginia, adopted specific recommendations for amendments closely paralleling the rights enunciated in Mason's declaration. Then, at its first meeting in 1789, the United States Congress adopted ten amendments for ratification by the states. When Virginia ratified the amendments on December 15, 1791, the Bill of Rights finally became part of the United States Constitution.

One needs only to compare the Virginia Declaration of Rights and the Constitution's first ten amendments to discern the effect of the one upon the other. Taken from the Declaration are the first amendment rights of freedom of the press and free exercise of religion; the second amendment right to bear arms; the fourth amendment proscription against unreasonable searches and seizures; the fifth amendment rights of freedom from self-incrimination and of due process of law; the sixth amendment rights of speedy trial by an impartial jury, of confrontation of witnesses, and of compulsory process; the seventh amendment right of jury trial in civil cases; and the eighth amendment prohibitions against excessive bail and cruel and unusual punishment.

Furthermore, I think it can be fairly stated that George Mason's stubborn insistence upon the inclusion of a bill of rights in the Constitution was a most important factor in the ultimate adoption of the first ten constitutional amendments. His adamant opposition to the Constitution without a bill of rights brought him severe criticism and even cost him election as a Fairfax County delegate to the Virginia Convention, called to ratify the Constitution; it is almost unbelievable that he had to go to the Convention as a delegate, not from Fairfax, but from Stafford County. However, the sincerity of his views and the persistence of his labors overcame all opposition and resulted in

the eventual exoneration of his position, to the great benefit of his countrymen and posterity.

The influence of the Virginia Declaration of Rights did not end, however, with the American Constitution. In 1789, the same year that the United States Congress adopted the first ten amendments for ratification by the states, the French Constituent Assembly considered a declaration of rights proposed, quite appropriately, by the Marquis de LaFayette. On August 27, 1789, the Assembly adopted the proposed declaration, and it was accepted the following November by Louis XIV.

An examination of the French declaration demonstrates the strong influence of its Virginia counterpart. Indeed, the similarity between the principles stated in the two documents is striking. A leading French statesman of the time wrote: "The first declaration of rights that is entitled to be called such is that of Virginia [and] its author is entitled to the eternal gratitude of mankind."

We can do no less today than give George Mason our complete gratitude. Through his dynamic pen and his tireless efforts, he helped gain and insure those blessings of liberty we now enjoy in greater measure than any people in history.

With his Fairfax Resolves, he laid the groundwork for the building of a nation based on the principle of liberty and justice for all. In his Declaration of Rights, he made certain that "frequent Recurrence to fundamental Principles" would occur. As we look in retrospect upon what he contributed to the cause of independence, we can express grateful acknowledgement in words Mason himself once used in a different context: "we seem to have been treading upon enchanted ground."

Thus, it is no small wonder that Mason's statue stands in the Old House of Delegates located inside the Capitol building in Richmond. The real wonder is that a similar memorial does not stand in the Capitol building in Washington. His commitment to give meaning to the words "liberty" and "freedom" left a legacy of both to generations unborn.

B. JOHN MARSHALL

Not a great deal is known about the relationship between George Mason and John Marshall. In a letter to his son John on July 12, 1791, Mason said Marshall was a "worthy" man and an "intimate" friend. However, in a later letter to the son on July 5, 1792, Mason said Marshall was handling a case for him in the "high court of

Chancery" but he feared "it [was] neglected by Marshall; who tho' a very worthy Man, is an indolent one."

We do know that Mason and Marshall crossed paths in June 1788, as delegates to the Virginia Convention, called to ratify the Constitution. They also crossed swords at the Convention, with Mason, the elder statesman, opposing ratification and Marshall, the upcoming young lawyer and politician, favoring ratification. Mason would pass to his reward on an autumn Sunday afternoon in 1792, well before Marshall became the great Chief Justice.

Most Americans think of John Marshall only as a judge. But before he assumed that role, he was a loyal soldier of the Revolution, a skilled practitioner of the law, a successful diplomat, a respected legislator, and a distinguished Cabinet member. The full story of his life is fascinating. Listen to some of the details.

John Marshall was born at Midland in Fauquier County on September 24, 1755, and he spent his childhood in Fauquier. Then, when he was nineteen, the first shots of the American Revolution were heard on the village green in Lexington, Massachusetts. A few weeks later, a company of militiamen assembled in Fauquier County under Lieutenant John Marshall. He instructed the men in the manual of arms and encouraged them to follow him in joining the Minute Battalion, which was about to be formed.

Marshall's war experiences carried him from the Battle of Great Bridge, near Norfolk in Virginia, to the Battles of Brandywine and Germantown, near Philadelphia, through the winter of 1777-78 in Valley Forge, to the Battle of Monmouth, New Jersey, on June 28, 1778. Although he stayed in the Army another year as a Deputy Judge Advocate, he engaged in no further fighting. But one significant aspect of his war experiences stands out: while at Valley Forge, he became part of George Washington's command group and actually Washington's protege, a fact that would affect the entire course of his life.

Leaving the Army in late 1779, Marshall journeyed to Yorktown, where his father was stationed. There he met Polly Ambler, whose family lived next door to his father. She later would become his wife; but first, he set out to make his fortune. He decided to study law and entered the College of William and Mary, where he came under the influence of George Wythe, America's first and most outstanding professor of law. From Wythe, Marshall learned many of the basic principles he later put to use as Chief Justice of the United States.

Spending only a few months at William and Mary, Marshall returned to Fauquier in the summer of 1780 and was admitted to the

practice of law on August 28. After the war ended, he moved to Richmond so, he said, he could practice in the state's superior courts. It is just as likely, however, that the move was prompted by his desire to be near Polly Ambler, whose family had also moved to Richmond. He would wait until January 3, 1783, however, when Polly was still only sixteen, to make her his wife.

Marshall soon became a successful member of the Richmond bar. Recognized as a lawyer's lawyer, he argued cases for other attorneys in the state's high courts. In addition, he represented prominent persons throughout the state, including George Washington and Thomas Jefferson, although Jefferson would later become his bitter political enemy.

Marshall also entered politics. He was elected to the House of Delegates and was then chosen by the House to serve on the Privy Council, a powerful advisory body to the Governor. He retired from the House in 1785 to run for the office of Attorney General, but he was defeated. He was elected again to the House of Delegates and was instrumental in securing a favorable vote in the House for the convening of a special convention to consider the ratification of the Constitution, which had been adopted in Philadelphia on September 17, 1787.

Marshall was elected as a delegate to the Virginia Convention. The Convention met on June 2, 1788, and continued until June 25. Strong opposition, led by Patrick Henry, kept the question of ratification in doubt until the very end. Marshall was selected to debate Henry, a formidable task for anyone, but especially for one so young and inexperienced as Marshall. His success was reflected in the favorable vote for ratification, and his role in the Convention placed him in the forefront of Virginia politics and brought him national prominence.

Marshall did not seek another term in the House of Delegates at the next election. His services, however, were continually sought after. He rejected offers of appointment from President George Washington to be United States Attorney for Virginia, Attorney General of the United States, and Minister to France. Washington would leave the presidency without fulfilling a desire to place Marshall in high office.

However reluctant he might have been to return to public service, Marshall could not long stay aloof. After the French Revolution, relations between France and the United States deteriorated. The excesses of the French Revolution frightened even France's warmest American friends, and the fears heightened when France began attacking American ships.

John Adams, who was President by this time, sought desperately to avoid war with France and attempted to settle matters through peaceful means. The political climate of this country made this effort extremely difficult. Fearful that the country would not approve of sending anyone as Minister to France, President Adams selected three persons, Charles Cotesworth Pinckney, Elbridge Guerry, and John Marshall, "to be jointly and severally envoys extraordinary and Ministers Plenipotentiary to the French Republic." Although inclined at first to reject the appointment, Marshall finally accepted.

The three envoys would spend many frustrating, humiliating, and tiring months in France, ultimately becoming enmeshed in the infamous "XYZ Affair." But war with France was averted and, important to this discussion, John Marshall, much to his own surprise, returned home a national hero.

Marshall returned to Richmond determined to resume his law practice and a normal life with his family. Soon, however, he was approached to run for Congress. He refused. George Washington, anxious to see Marshall in Congress, summoned him to Mount Vernon. En route, Marshall tore his only pair of trousers and had to borrow a pair from his host. He at first refused Washington's urging to run for Congress, but finally gave in when his former Commander-in-Chief appealed to his sense of duty.

Marshall was elected and took his seat in the House of Representatives on December 2, 1799. He quickly became a leader in the House. One of his floor speeches was described as "a perfect model of argumentative eloquence" and as one which "deserves to be ranked among the most dignified displays of human intellect."

Shortly before Congress adjourned in May 1800, Marshall stopped by the War Department to inquire about a matter for a constituent. He detected a coldness in the Secretary of War, whom he considered a good friend. Much to Marshall's consternation, he learned from a clerk that President Adams had on May 7 nominated him to replace the incumbent Secretary of War. Marshall asked Adams to withdraw the nomination, but the President refused, and the Senate confirmed Marshall on May 9. Then, three days later, the Secretary of State resigned, and Adams nominated Marshall for that position. The Senate confirmed Marshall on May 13, and he willingly accepted this appointment, considering himself fit for the position. He took office at an annual salary of \$5,000, with a staff of nine persons, comprising the entire Department of State.

Marshall served as Secretary of State for ten months until John Adams left the presidency following his defeat for reelection. During

his tenure, Marshall initiated a policy later to be enunciated in the Monroe Doctrine, telling foreign nations: "Don't bother us, and we won't bother you."

Before Adams left office, he had one last important appointment to make. Oliver Ellsworth had been serving as Chief Justice of the United States, but he fell ill and resigned in December 1800. Adams offered the post to John Jay, who had been the first Chief Justice but who had resigned to become Governor of New York. When Jay refused reappointment to the Court, Adams asked Marshall to recommend someone. Marshall said he had no suggestion other than one Adams had rejected previously. Adams then said to Marshall, "I believe I must nominate you." Adams made the nomination, the Senate unanimously confirmed Marshall on January 27, 1801, and he took his seat on February 4, 1801.

Thus began a brilliant judicial career unsurpassed in the history of American jurisprudence. During his career, Marshall took a document which Alexander Hamilton had described as "a frail and worthless fabric", transformed it into a living, continuing Constitution of fundamental law, and adapted it "to the various crises of human affairs." He took a court which had been "an object of derision, even contempt" and converted it into an equal partner in the tripartite arrangement so basic to our system of government. He took a federal judiciary, which politicians had sought to make a subservient hand-maiden of the other branches of government, and gave it the freedom and independence vitally essential to its existence.

All this Marshall accomplished with a deep sense of humility, an abiding air of modesty, and a noble character exceptional for its unpretentious simplicity. To these great attributes were added a superb intellect and a superior power of reasoning. Even more, Marshall was a prodigious worker, often turning out a greater number of opinions than all his associates combined. Without aid of legal precedent, but passionately motivated by a desire to see the new Constitution work and the infant nation survive, Marshall became the "expounder of the Constitution" and the father of American constitutional law.

With the facility of his fertile mind and the clarity of his bold pen, in one major opinion after another, Marshall established the Constitution as the supreme law of the land and his Court as the final arbiter of that law. Early on, he postulated that America had founded a nation of laws and not of men, and he exalted the Constitution to the pinnacle of authority as the ultimate rule governing human affairs.

Above all else, Marshall believed the judiciary should be free and independent. In a letter to one of his associates, Justice Guerry, in

1821, he wrote "[t]hat in a free country with a written constitution any intelligent man would wish a dependent judiciary . . . would astonish me . . . I had not learnt from observation that with many men the judge . . . is completely controlled by the passions."

And in the very last opinion he wrote, he made a final observation about the independence of the judiciary. He said: "In the excitement produced by ardent controversy, gentlemen view the same object through such a different media that minds not infrequently receive therefrom precisely opposite impressions. The Court, however, must see with its own eyes, and exercise its own judgment, guided by its own reason."

In his long career as Chief Justice of the United States—spanning 34 years—John Marshall always strove for excellence; he ever sought to promote respect for law and the courts; and he continuously endeavored to advance the concept of human dignity. His ideal of government was noble, almost reverent. He once said that the "principles of good government are . . . a strict observance of justice and good faith, and a steady adherence to virtue."

Marshall hoped upon his retirement to return to Fauquier, the county of his birth. Plans were made to build an addition on the home of one of his sons for his use. But his hopes would not be fulfilled. One Sunday afternoon in June 1835, while walking from his Richmond home to visit Polly's grave in Shockhoe Cemetery, he collapsed from exhaustion. He was carried to Philadelphia for treatment and died there on July 6, 1835.

To gauge the extent of John Marshall's legacy, one need only guess what this country would have become without him. That we are a nation governed by a rule of law because he lived, there can be no doubt. Oliver Wendell Holmes said that "[i]f American law were to be represented by a single figure, sceptic and worshipper alike would agree without dispute that the figure could be but one alone, and that one John Marshall."

And I suggest to you that if history ever records the names of those most responsible for the long-term survival of the Constitution, the names of George Mason and John Marshall surely would be at or near the top of the list.

THE DISPOSITION OF THE CURRENT STOCKPILE OF CHEMICAL MUNITIONS AND AGENTS

by Major Lawrence E. Rouse*

I. INTRODUCTION

Today the United States faces the difficult and necessary task of disposing of a broad array of chemical agents and weapons that were developed for military purposes over a period of more than half a century. The effort required to successfully complete this task without causing harm to individuals or the environment is extensive. The cost will be measured in billions of dollars and the time involved will be measured in years. A myriad of legal and regulatory requirements administered by a variety of governmental agencies and entities will need to be met. The accomplishment of this mission is a major challenge facing the United States Army.

II. THE U.S. CHEMICAL STOCKPILE

The United States maintains a large stockpile of chemical munitions and agents in several locations within this country and overseas. The stockpile contains agents which are far more lethal than the chemical released in Bhopal, India, in 1984 causing about 2,000 deaths.¹ Due to age, uncertain toxicity, and design unsuitability, much of this current stockpile is a military liability rather than an asset.² The United States chemical stockpile provides only a marginal deterrent capability at the present time.³ The U.S. Army Toxic and Hazardous Materials Agency (USATHAMA) reports that the retaliatory capability of the current stockpile is 10% useful, 18% of limited use, 11%

*Major, Judge Advocate General's Corps. Presently assigned as Litigation Attorney, Environmental Litigation Branch, Office of The Judge Advocate General. Formerly assigned as Officer in Charge, New Ulm Branch, Office of the Staff Judge Advocate, 1st Infantry Division (Forward), 1983-1986; Chief, Services Division, The Judge Advocate General's School, 1979-1982; and at the Office of the Staff Judge Advocate, III Corps and Fort Hood, 1977-1979. B.A., University of Wisconsin, 1973; J.D., Hofstra University, 1976; LL.M., George Washington University, 1987. Member of the New York State bar. This article is based upon a thesis submitted in partial satisfaction of the requirements of the LL.M. program at George Washington University.

¹Chemical Warfare Review Commission, Report of the Chemical Warfare Review Commission 58 (1985) [hereinafter Commission].

²*Id.* at 20.

³*Id.* at 46.

of no use and 61% not in useful form.⁴ The stockpile is monitored and inspected at regular intervals and the significant majority is stored in covered igloos.⁵ During the extensive storage of this material there have been no serious incidents or accidents.⁶ The annual storage costs for the maintenance and security of the current chemical stockpile amount to approximately \$63.8 million.⁷

The agents maintained in this stockpile all are at least 20 years old, because there has been no manufacturing of these chemicals since 1968, and some are more than 40 years old. Many are obsolete or unserviceable, and there have been incidents of leakage from some of the stored munitions.⁸ By tonnage of agent, the stockpile is distributed as follows: Tooele Army Depot, Utah (TEAD)—42.3%; Pine Bluff Arsenal, Arkansas (PBA)—12%; Umatilla Depot Activity, Oregon (UMDA)—11.6%; Pueblo Depot Activity, Colorado (PUDA)—9.9%; Anniston Army Depot, Alabama (ANAD)—7.1%; outside the Continental United States (Johnston Atoll in the Pacific Ocean and within the Federal Republic of Germany)—6.6%; Aberdeen Proving Ground, Maryland (APG)—5%; Newport Army Ammunition Plant, Indiana (NAAP)—3.6%; Lexington-Blue Grass Army Depot, Kentucky (LBAD)—1.6%.⁹

The munitions in the stockpile consist of a broad range of rockets, bombs, mines and projectiles. These include 4.2 inch mortar projectiles containing mustard agent, 105 millimeter artillery projectiles containing mustard and nerve agent GB, 155 millimeter artillery projectiles containing mustard and nerve agents GB and VX, 8 inch artillery projectiles containing nerve agents GB and VX, the M23 land mine containing nerve agent VX, M55 115 millimeter rockets containing nerve agents GB, and VX, bombs of 500, 600 and 750 pounds containing nerve agent GB, and aerial spray tanks containing nerve agent VX.¹⁰

Many of these munitions are obsolete or of no military utility. The M55 rocket presents the most significant problem. It was developed in the 1950's, produced between 1961 and 1965, and declared obsolete

⁴U.S. Army Toxic and Hazardous Materials Agency, Chemical Stockpile Disposal Program, General Information 1 (1986) [hereinafter CSDP, General Information].

⁵National Research Council, Disposal of Chemical Munitions and Agents: A Report 20 (1984).

⁶*Id.* at 30.

⁷Commission, *supra* note 1, at 59.

⁸National Research Council, *supra* note 5, at 3.

⁹CSDP, General Information, *supra* note 4, at 2.

¹⁰Program Manager for Chemical Demilitarization, Chemical Stockpile Disposal Program Draft Programmatic Environmental Impact Statement A-3—A-4 (1986) [hereinafter DPEIS].

in 1981.¹¹ The present stockpile includes 369,000 rockets with nerve agent GB and 109,000 rockets with nerve agent VX.¹² The National Academy of Sciences recommended in 1984 that the first priority be given to the disposal of this munition.¹³ The spray tanks are designed for the F-4 and older aircraft which are being phased out, and they can only be used by flying a slow, straight course over the target at low level, tactics which make battlefield survival unlikely.¹⁴ The projectiles for the 4.2 inch mortar, 105 millimeter artillery, 155 millimeter artillery and 8 inch artillery are of limited utility due to their short range and the phasing out of much of the artillery capable of delivering the mortar and 105 millimeter projectiles.¹⁵ With the exception of M55 rockets, there have been few leaks from munitions and containers.¹⁶ Leakage from artillery rounds has been only at a rate of approximately six projectiles per 100,000 in the stockpile.¹⁷ The frequency of leakage has not substantially increased in recent years.¹⁸

A. CHEMICAL AGENTS IN THE STOCKPILE

The U.S. chemical stockpile contains two basic types of chemical agents, nerve and mustard. It contains a nonlethal hallucinogenic known as BZ, which is being disposed of under a separate program not discussed in this paper.

The nerve agents in the U.S. stockpile are known as GA (Tabun), GB (Sarin), and VX. All directly affect the nervous system and are highly toxic in liquid and vapor forms. They can be absorbed through the skin or inhaled.¹⁹ The physical effects on those exposed to sufficient levels of these agents include pinpoint pupils, increased salivation, abnormal tearing of the eyes, involuntary urination and diarrhea, convulsions, and respiratory collapse resulting in death.²⁰

There are four mustard agents in the U.S. chemical stockpile. These are known as H, HD, HT and L (Lewisite). They are all persistent agents whose liquid and vapor cause inflammation. They are only

¹¹U.S. Army Material Systems Analysis Activity, Independent Evaluation/Assessment of Rocket, 115 mm: Chemical Agent (GB or VX), M55, 1 (1985) [hereinafter M55 Rocket Study].

¹²*Id.* at 45.

¹³National Research Council, *supra* note 5, at 62.

¹⁴Commission, *supra* note 1, at 23.

¹⁵*Id.* at 21-22.

¹⁶National Research Council, *supra* note 5, at 41.

¹⁷Commission, *supra* note 1, at 20.

¹⁸National Research Council, *supra* note 5, at 41.

¹⁹CSDP, General Information, *supra* note 4, at 46.

²⁰National Research Council, *supra* note 5, at 152-53.

moderately volatile. Lewisite causes harsher and more immediate damage than the H agents. All, but especially Lewisite, may cause temporary or permanent blindness and skin burns.²¹

It is important to consider that all the available data on the health effects of chemical agents is uncertain. It is not feasible to test the lethality of these agents on various human beings and develop differing human susceptibilities that may exist based on age, preexisting disease, weight, inhalation rates, or other factors.²² Additionally, these agents are twenty to forty years old, have been stored in various containers under differing conditions, and may have developed greater or lesser toxicity during the storage period. At present it appears that the chronic effects of exposure to H, HD, HT or L may be a predisposition to cancer, while there appears to be no likely chronic effects from small exposures to GA, GB or VX.²³ It also appears that mustard probably has very little chronic toxicity at low dose.²⁴

B. THE EXCEPTIONAL CONCERNS INVOLVED WITH THE M55 ROCKET

As noted earlier, the M55 rockets present special disposal problems. They are the most dangerous items in the stockpile. They contain GB or VX, and they have fuzes, burster chargers, and propellants in place. These rockets also are the source of the greatest number of leaking chemicals.²⁵ In 1985, the Army reviewed the rocket stocks and developed significant data concerning their current condition.²⁶ The VX filled rockets had not developed the leaking problems that occurred in the GB filled rockets.²⁷ While GB, in general, reacts with the aluminum warhead of the rocket and corrodes the metal, the rate this occurs varies with the type of GB in the rocket. Four types of GB were placed in M55 rockets. These are PRO (preroundout), RO-RS (Roundout-Restabilized), PRO-RS (Preroundout-Restabilized), and RD-RS (Redistilled-Restabilized). PRO GB is in approximately 330,000 rockets, which the study found developed 203 leakers, or

²¹ CSDP, General Information, *supra* note 4, at 47-48.

²² U.S. Army Program Manager for Chemical Demilitarization, Chemical Stockpile Disposal Program Information for Public Hearings 43 (1986) [hereinafter CSDP Public Hearings].

²³ Program Manager for Chemical Demilitarization, Chemical Stockpile Disposal Program Draft Programmatic Environmental Impact Statement 4-36 (1986) [herein after DPEIS].

²⁴ Chemical Stockpile Disposal Program Draft Programmatic Environmental Impact Statement, 1986: Public Hearing conducted at Edgewood, Maryland (1986) (statement of Doctor Vernon Houk) [hereinafter Edgewood Public Hearing on DPEIS].

²⁵ National Research Council, *supra* note 5, at 4-5.

²⁶ M55 Rocket Study, *supra* note 11.

²⁷ *Id.* at 2.

0.06%. RO-RS GB is in 10,000 rockets, which developed 476 leakers, or 4.8%. PRO-RS GB is in 15,000 rockets, which developed 96 leakers, or 0.64%. RD-RS GB is in 14,000 rockets, which developed 77 leakers, or 0.55%. These different types of GB agent are distributed among the different storage locations so not all the most serious leakers are in a single place.²⁸

The leakage that occurs in these rockets may be internal or external. External leakage normally is discovered by examination at the storage site, while internal leakage can only be discovered by disassembly. Internal leakage was estimated at 1-3% of the stockpile, but the limited sampling conducted makes this figure uncertain. Internal leakage can be a serious safety hazard, because the potential for the production of metal salts that can react with the explosive or energetic components increases as the GB continues to react with the metals. The tests indicated, however, that it was not likely that enough salts were produced to cause such a reaction. A further danger exists if the GB migrates into the fuze cavity; this could weaken the fuze spring's metal, causing the fuze to arm during normal handling. Once the fuze is armed, a sufficient impact could cause detonation. While the likelihood of such an event is very small, the degradation process is time dependent.²⁹

The rocket containers do not contain the chemical agents in the event of leakage.³⁰ When a leaking rocket is discovered it is sealed in a heavy steel container until destroyed.³¹ Because the planned disposition program considers movement of the rockets to locations away from some of their current storage sites, planners must consider the rockets' susceptibility to developing leaks during handling. The 1985 study estimated that as many as 1.8% of the rockets could develop external leaks due to handling. Three of the 349 handled during the testing program did develop leaks.³²

A further difficulty with the M55 rocket involves its propellant. This propellant contains a stabilizer to prevent autoignition. The stabilizer slowly degrades over the years, because it continually acts to absorb internal propellant emissions. The original standard set for stabilizer content was 1.7%, with allowances for it to go as low as 1.4%. It is considered unsafe when it reaches 0.2%. The propellant stabilizer degradation appears to be accelerated by high tempera-

²⁸*Id.* at 1-2.

²⁹*Id.* at 19-40.

³⁰*Id.* at 26-27.

³¹Commission, *supra* note 1, at 58.

³²M55 Rocket Study, *supra* note 11, at 38.

tures, and the greatest degradation has been found in the Johnston Atoll (JA) lots. Current stabilizer levels are believed still safe, however, with lower limits at JA and PBA; all are above 1.4%.³³

The M55 rocket is such a special concern, because the detonation of a single rocket could set off all the rockets stored within an igloo.³⁴ The probability of such a catastrophic event is considered to be between 1 in 10 million (0.1×10^{-6}) and 1.1 in a million (1.1×10^{-6}),³⁵ but the accuracy of these estimates is extremely rough. The study of the M55 rockets reached the conclusion that the worst case estimate of the remaining storage life of the stocks is approximately 25 years for the fastest deteriorating rockets.³⁶ The need to dispose of these munitions within a specific time frame adds a degree of urgency to the entire stockpile disposal planning process.

C. STORAGE SITES

The chemical stockpile is divided among eight storage sites within the continental United States and two locations overseas. The disposal of the munitions located within the Federal Republic of Germany is subject to negotiation between governments and is outside the scope of the Army's disposal planning. The Department of State will negotiate on behalf of the United States, and the Army will implement the final agreement reached by the two countries. The other nine storage sites are widely separated and represent varying concerns in developing a disposal program.

Tooele Army Depot, Utah, is approximately thirty miles southwest of Salt Lake City. It is located in a remote area and includes by far the largest portion of the stockpile. There are about 1,000 inhabitants of small towns and ranches within three to seven miles. The City of Tooele has approximately 10,000 inhabitants and is eighteen miles away. The Army's test disposal facility is located at Tooele.³⁷ Tooele stocks a wide variety of chemical agents and munitions. It has H in projectiles and ton containers; HD in projectiles, cartridges (assembled projectiles ready for firing) and ton containers; HT in cartridges and projectiles; GB in cartridges, projectiles, rockets, bombs, and ton containers; GA in ton containers; VX in projectiles, rockets, mines, spray tanks and ton containers; and L in ton containers.³⁸ A recent survey indicated that emergency response planning needs to be en-

³³Id. at 7-11.

³⁴National Research Council, *supra* note 5, at 39.

³⁵M55 Rocket Study, *supra* note 11, at 41.

³⁶Id. at 12.

³⁷National Research Council, *supra* note 5, at 161.

³⁸CSDP, General Information, *supra* note 4, at 37-39.

hanced to improve the capability to respond to situations extending off the installation. The installation's ability to respond to on-site incidents is good.³⁹

Pine Bluff Arsenal, Arkansas, is located approximately thirty miles southeast of Little Rock. The installation is bordered closely by the cities of Pine Bluff and Whitehall. PBA stores HD in cartridges and ton containers; HT in ton containers; GB in rockets and ton containers; VX in rockets and mines; and BZ. The Army is constructing a facility to dispose of BZ at PBA. The United States Environmental Protection Agency (EPA) has issued a permit for the Army to construct a hazardous waste landfill, also approved by the State of Arkansas, at PBA.⁴⁰ The 1987 assessment of emergency preparedness at PBA indicated that the organization was good, but there was a need for more coordination and planning between base and off-site agencies.⁴¹

Umatilla Depot Activity, Oregon, is located in a relatively isolated area. The small cities of Umatilla, with population of about 3,000, and Hermiston, with population of about 10,000, are located within seven miles. UMDA stores HD in ton containers; GB in projectiles, rockets, bombs and ton containers; and VX in projectiles, rockets, mines, spray tanks and ton containers.⁴² The 1987 review of emergency response preparedness indicated good organization and cooperation.⁴³

Pueblo Army Depot Activity, Colorado, is located near the city of Pueblo, with a population of approximately 100,000. PUDA stores only HD in cartridges (a fully assembled round of artillery or mortar ammunition) and projectiles, and HT in cartridges.⁴⁴ Since only these agents are stored there, there is significantly less risk to workers and inhabitants because of the much smaller areas that H agents disperse across. The 1987 review of emergency preparedness indicated that it was generally good but reflected a need for communications improvements between the installation and civilian communities.⁴⁵

³⁹Office of the Program Manager for Chemical Demilitarization, II Emergency Response Concept Plan for the Chemical Stockpile Disposal Program A5-7 (1987) [hereinafter Emergency Response Concept Plan].

⁴⁰CSDP, General Information, *supra* note 4, at 33-34; National Research Council, *supra* note 5, at 169.

⁴¹Emergency Response Concept Plan, *supra* note 39, at A8-10.

⁴²CSDP, General Information, *supra* note 4, at 40-41; National Research Council, *supra* note 5, at 163.

⁴³Emergency Response Concept Plan, *supra* note 39, at A7-8.

⁴⁴CSDP, General Information, *supra* note 4, at 35-36; National Research Council, *supra* note 5, at 171.

⁴⁵Emergency Response Concept Plan, *supra* note 39, at A3-2.

Anniston Army Depot, Alabama, is located near the city of Anniston, with a population of about 30,000. ANAD stores HD and HT in cartridges, projectiles, and ton containers; GB in cartridges, projectiles, rockets, mines, and ton containers; and VX in projectiles, rockets, mines, and ton containers.⁴⁶ The 1987 review of emergency preparedness for ANAD and surrounding communities indicated that quality personnel and organizations existed on- and off-site, with some need for further coordination.⁴⁷

Johnston Atoll is by far the most remote location among the storage sites. It is located about 800 miles southwest of Hawaii. JA consists of four small islands, the largest of which is Johnston Island, about 625 acres, where the chemical munitions are stored. This island is about two miles long and one-half mile wide and of an average elevation of only six feet above sea level. Most of the island was created by dredge and fill operations. There is no evidence that it was ever inhabited prior to its discovery in 1796. It is now an unincorporated territory of the United States, and President Coolidge designated it a Federal Wildlife Refuge in 1926. The Department of Defense exercises jurisdiction subject to its continued use as a Refuge.⁴⁸ JA has almost no animals other than seabirds. Some other animals, such as dogs, cats, rabbits and small lizards, have been introduced by humans over the years. Personnel assigned to JA are no longer allowed to bring pets there in order to protect the seabird population.⁴⁹ The Army moved the chemical stockpile from Okinawa to JA in 1971. The initial plan was for these stocks to be relocated to UMDA, but Congress prevented this with Section 1306, Public Law 91-672.⁵⁰ The JA stockpile consists of H and HD in projectiles; HD in ton containers; GB in rockets, projectiles, bombs, and ton containers, and VX in rockets, mines, projectiles, and ton containers.⁵¹ JA is the first facility within which disposal operations are scheduled to begin. The disposal of the JA stockpile is more urgent, because the limited storage facilities at JA do not provide adequate protection from the corrosive salt air environment, there is a high percentage of unserviceable munitions, and there is a possibility of hazard from severe weather.⁵² The planned disposal operations at JA will be discussed later in this article.

⁴⁶CSDP, General Information, *supra* note 4, at 28; National Research Council, *supra* note 5, at 167.

⁴⁷Emergency Response Concept Plan, *supra* note 39, at A6-12—A6-13.

⁴⁸U.S. Army Corps of Engineers, Pacific Ocean Division, Johnston Atoll Chemical Disposal System (JACADS), Final EIS 15-16, 32, 37-38 (1983) [hereinafter JA FEIS].

⁴⁹*Id.* at 47, 51-52.

⁵⁰*Id.* at 13.

⁵¹*Id.* at E-1.

⁵²*Id.* at 13-14.

Aberdeen Proving Ground, Maryland, stores chemical agents at the Edgewood Area, about fifteen miles northeast of Baltimore. The location is not immediately adjacent to any densely populated areas, but several small communities of population under 10,000 are within three miles of the installation. APG primarily stores HD in ton containers, but also maintains small stocks of other agents for research purposes.⁵³ The Headquarters of the U.S. Army Toxic and Hazardous Materials Agency (USATHAMA) is also located at the Edgewood Area. USATHAMA is the responsible agency for the entire disposal program. The 1987 review of emergency response capability indicated a good relationship between on- and off-site agencies, but a limited public warning capability.⁵⁴ As will be discussed later, the level of local opposition to any on-site disposal plan has been moderate and the waterfront location raises the possibility of water transport of the agent out of the facility.

Newport Army Ammunition Plant, Indiana, is operated by Uniroyal under government contract and maintains VX production facilities in standby readiness. The surrounding area is sparsely populated with a few small towns nearby. NAAP stores only VX in ton containers.⁵⁵ The small population and standby status of the facility limits its emergency response capability.

Lexington-Blue Grass Army Depot, Kentucky, presents a more intricate problem than that posed by any other storage site. It is located in a more densely populated area than other facilities, though not significantly so. It is three miles from Richmond, Kentucky, with a population of 34,000. LBAD has the smallest percentage of the total stockpile, about 1.6%, and opponents to any on-site disposal facility have cited that factor, along with the relatively denser population, in support of their position. The stockpile at LBAD, however, is varied and presents greater disposal problems than others, such as APG or NAAP. LBAD stocks H in projectiles and ton containers; GB in projectiles, rockets, and ton containers; and VX in projectiles, rockets, and ton containers.⁵⁶ Also requiring consideration is the presence nearby of three schools, a 17,000-student university and a small college, which may add many daytime residents to the general area near

⁵³CSDP, General Information, *supra* note 4, at 25-26; National Research Council, *supra* note 5, at 155.

⁵⁴Emergency Response Concept Plan, *supra* note 39, at A4-12.

⁵⁵CSDP, General Information, *supra* note 4, at 31-32; National Research Council, *supra* note 5, at 159.

⁵⁶CSDP, General Information, *supra* note 4, at 29-30; National Research Council, *supra* note 5, at 157.

the installation.⁵⁷ The review of emergency response capability conducted in 1987 indicated a need to improve communications, civilian organization, and training.⁵⁸ Madison County, the primary local jurisdiction, has limited hospital and ambulance capability that could be overwhelmed by as few as ten simultaneous major emergency cases.⁵⁹ This area has a significant and well-organized opposition to any disposal plans that involve on-site disposal.

III. PRIMARY LEGAL GUIDELINES FOR DISPOSAL

A. CONGRESSIONAL MANDATES IN DISPOSAL OF CHEMICAL MUNITIONS

The United States Congress has established guidelines and restrictions for the Army to follow in developing a program to dispose of chemical agents and munitions in the current inventory. Beginning with the Appropriation Acts of 1969 and 1970,⁶⁰ Congress has focused significantly more attention on the problems presented by chemical agents and munitions.

The Appropriation Act of 1969 prohibited the use of appropriated funds for the transportation of lethal chemical agents to or from any military installation in the United States or open air testing of agents within the United States. Congress prohibited disposal of agents within the United States in the Appropriation Act of 1970. Congress mandated a particular procedure for the Department of Defense to transport, test, or dispose of these agents. The Secretary must determine that the action is necessary in the interests of national security, and must coordinate with the Secretary of Health and Human Services (HHS), who may direct the Surgeon General or other officials to review the planned action from a public health and safety perspective.⁶¹ The Secretary of Defense must adopt any precautionary measures that HSS recommends unless the Secretary finds that such recommendation would prevent the proposed action and obtains an exemption from the President based upon "overriding considerations of national security." The President must report such a determination to

⁵⁷Chemical Stockpile Disposal Program, 1986: Hearings Before Subcomm. on Investigations of the House Comm. on Armed Services, 99th Cong., 2d Seas. (1986) (Statement of Dr. William H. Mitchell, Secretary-Treasurer of Madison County Medical Society) [hereinafter Subcommittee Hearings].

⁵⁸Emergency Response Concept Plan, *supra* note 39, at A1-2—A1-3, A1-10.

⁵⁹Subcommittee Hearings, *supra* note 57 (Statement of Dr. William H. Mitchell).

⁶⁰U.S. Army Toxic and Hazardous Materials Agency, Chemical Stockpile Concept Plan B-3 (1968) [hereinafter Concept Plan].

⁶¹50 U.S.C. § 1512(1), 1512(2) (1982).

the President of the Senate and the Speaker of the House of Representatives.⁶² In any event, the Secretary of Defense must also notify the President of the Senate and Speaker of the House of Representatives, and in the event of transportation of chemical agents, the Governor of any state through which the agents are to be transported, of the fact that transportation, testing or disposal will take place.⁶³ In the event of transportation, the agent must first be detoxified, if practicable, before being transported to or from a military installation for disposal.⁶⁴ The Presidential exemption that the statute provides for also applies to this requirement. The statute does authorize the transportation and disposal of research quantities of agents or, when necessary in emergency situations, to protect the health or safety of any person.⁶⁵ This provision is necessary to allow the testing of disposal technologies and destruction of dangerous munitions, such as leaking M55 rockets. As noted earlier, Congress specifically acted to prohibit the return of chemical stockpiles on Okinawa to the United States in 1971,⁶⁶ resulting in their storage at Johnston Atoll.

The 1969 and 1970 Appropriation Acts also specifically prohibited the disposal of chemical munitions in international waters, a practice that the United States used until that time, unless the Secretary of State determined such disposal did not violate international law.⁶⁷ The effect of these Congressional mandates was to initiate serious research and development activity in the area of creating a disposal technology that safely and completely destroyed the agents. This has been a major program of USATHAMA for over fifteen years.

In the last few years, the national debate over the development of binary munitions has affected the disposal program. The current stockpile consists of unitary munitions, which means the agents within the munitions are complete chemical compounds and highly toxic. Recent research and development in the chemical warfare field has been directed at binary munitions, which would contain separate chambers, each filled with separate nontoxic chemicals that would mix during the flight to target to form a toxic substance. Such munitions would be easier to store, handle and transport. The controversial binary chemical munitions procurement authority contained in the 1984 DOD Authorization Act directly ties binary chemical munitions production to disposal of the current unitary chemical

⁶²50 U.S.C. § 1512(3) (1982).

⁶³50 U.S.C. § 1512(4) (1982).

⁶⁴50 U.S.C. § 1512(3) (1982).

⁶⁵50 U.S.C. § 1517 (1982).

⁶⁶Act of Jan. 12, 1971, § 13, Pub. L. No. 91-672, 84 Stat. 2053, 2055 (1971).

⁶⁷50 U.S.C. § 1513 (1982).

stockpile, requiring a one-for-one replacement by allowing DOD to produce a binary munition only if DOD makes a unitary munition permanently useless.⁶⁸ While this requirement may provide incentive to dispose of the current stockpile to replace it with equivalent numbers of binary munitions, it also may unnecessarily delay the binary program while the unitary disposal program faces legal challenges. From a military preparedness standpoint, this could result in the inability of the United States to produce usable chemical munitions, because DOD cannot destroy unserviceable stocks due to litigation or other factors. This requirement may also provide an incentive to assemble new, unitary munitions which DOD could then "trade" for the construction of an equal number of binary munitions.

During the years of U.S. restraint in production of chemical weapons, since 1969, there has been an enormous Soviet effort to develop a significant chemical warfare capability, with conservative estimates rating the Soviet stockpile several times as large as the current useable U.S. stockpile.⁶⁹ A further deterioration in the retaliatory capability of the United States will reduce the deterrent effect of the U.S. chemical stockpile.

With the 1986 DOD Authorization Act,⁷⁰ Congress became significantly more involved in the development of a disposal program for chemical munitions by directing the Secretary of Defense to carry out the disposal of the existing stockpile by September 30, 1994.⁷¹ The statute provides for two exceptions: first, the date may be altered to conform to that in any treaty that the United States might ratify banning the possession of chemical agents and munitions; second, in the event of war, of national emergency as declared by the President or Congress, or in the event the Secretary of Defense determines that there has been a significant delay in the requisition of required binary munitions, the Secretary may defer the destruction of not more than ten percent of the current stockpile.⁷²

Congress gave specific directions to DOD for carrying out this mandated disposal program. The program must provide for the maximum protection of the environment, the general public, and the personnel involved in the operations.⁷³ DOD must construct the facilities to accomplish the destruction of these agents and munitions solely for that purpose. DOD may not use these facilities for any other purpose,

⁶⁸50 U.S.C. § 1519a (1982).

⁶⁹Commission, *supra* note 1, at 27, 41.

⁷⁰Act of Nov. 8, 1985, Title XIV, § 1412, Pub. L. No. 99-145, 99 Stat. 583 (1985).

⁷¹50 U.S.C. § 1521(b) (Supp. III 1985).

⁷²50 U.S.C. § 1521(b)(3)(A) (Supp. III 1985).

⁷³50 U.S.C. § 1521(c)(1)(A) (Supp. III 1985).

and it must clean, dismantle, and dispose of the facilities according to applicable laws and regulations after completion of the disposal operations.⁷⁴

Congress directed the Secretary of Defense to consult with the Secretary of HHS and the Administrator of EPA on developing a plan for this disposal action, with the requirement that the plan evaluate on-site destruction, the use of regional destruction centers, and the use of a national destruction center.⁷⁵ Congress required DOD to submit the plan by March 15, 1986, containing provisions for maintenance of permanent records and descriptions of the methods, facilities, schedules, and management organization involved.⁷⁶ Congress also directed the development of a management organization within the Department of the Army (DA) under direction of a general officer to carry out this program.⁷⁷ The Army established the Office of the Program Manager for Chemical Demilitarization under direction of a brigadier general in response to this provision. DOD submitted the mandated plan to Congress on March 15, 1986.

The disposal plan and subsequent Draft Programmatic Environmental Impact Statement revealed both public concern and concern within the federal government that the 1994 disposal deadline was causing inadequate consideration of health and safety. Congress responded in the 1987 DOD Authorization Act⁷⁸ by directing DOD to report on alternative approaches to the destruction of the chemical stockpile, optimizing safety and cost-effectiveness, without the constraints of the 1994 deadline. DOD submitted a supplement to the 1986 plan in March 1987.⁷⁹ Efforts are underway to place further requirements on DOD, including selection of either on-site, regional, or national disposal centers by February 1, 1988, and full-scale operational verification of the selected technology with the maximum protection for public health and the environment.⁸⁰ Congressman Larry Hopkins, whose district includes LBAD with the most serious opposition to on-site destruction, is leading these efforts. While it remains to be seen whether the 1988 DOD Authorization Act will contain new requirements for DOD concerning the disposal of the chemical stockpile, recent history indicates it is likely that Congress will give DOD new directions, probably requiring maximum protection for public

⁷⁴ 50 U.S.C. §§ 1521(c)(1)(B), 1521(c)(2) (Supp. III 1985).

⁷⁵ 50 U.S.C. § 1521(d) (Supp. III 1985).

⁷⁶ 50 U.S.C. § 1521(d) (Supp. III 1985).

⁷⁷ 50 U.S.C. § 1521(e) (Supp. III 1985).

⁷⁸ Act of Nov. 14, 1986, § 154, Pub. L. No. 99-661, 100 Stat. 3816 (1986).

⁷⁹ U.S. Army Program Manager for Chemical Munitions, Chemical Stockpile Disposal Plan Supplement (1987) [hereinafter CSDP Supplement].

⁸⁰ H.R. 1748, 100th Cong., 1st Sess. (1987).

health and the environment, and possibly requiring full operational verification.

B. PROCEDURES UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT

The development of a program to dispose of the chemical agent stockpile must take place within the parameters of the National Environmental Policy Act (NEPA).⁸¹ NEPA established the general environmental policy of the United States and created the requirement for federal agencies to include in major federal actions significantly affecting the quality of the human environment a detailed statement concerning the environmental impact of the proposed action. This statement will also include any adverse environmental effects that cannot be avoided with the proposed action, alternatives to the proposed action, the relationship between short-term uses of the environment and the maintenance and enhancement of long-term productivity, and any irreversible and irretrievable commitments of resources that would result from the proposed action.⁸² In developing this statement, the agency concerned must consult with and obtain comments from other federal agencies having jurisdiction by law or special expertise, and make the statement and comments available for public review.⁸³ This Environmental Impact Statement (EIS) has developed into an extremely important document for federal agencies that take actions affecting the environment. The military services do not have the same experience in preparing these EIS's as some other federal agencies, such as the Department of Transportation and the Department of the Interior, because military actions often affect very limited environments within the boundaries of installations, exclusively under military control, and are neither major nor significantly affect the human environment.

NEPA also established the Council on Environmental Quality (CEQ) within the Executive Office of the President, and CEQ serves as the President's principal advisory body on environmental matters.⁸⁴ CEQ has added significant detail to NEPA's EIS requirements by publishing regulations providing guidance to federal agencies concerning the EIS process.⁸⁵ These regulations have been important in forming the Army's approach to the environmental review process. USATHAMA, within DA, is the lead agency for the preparation of the environmental

⁸¹ Pub. L. No. 91-190, 83 Stat. 852 (1970).

⁸² 42 U.S.C. § 4332(c) (1982).

⁸³ *Id.*

⁸⁴ 42 U.S.C. § 4342 (1982).

⁸⁵ 40 C.F.R. §§ 1500-1508 (1986).

documentation for the disposal of the chemical stockpile.⁸⁶ Both HHS and EPA have been designated cooperating agencies for the chemical stockpile disposal program,⁸⁷ and they will work with the lead agency to develop environmental compliance documentation.

USATHAMA has contracted with Oak Ridge National Laboratory (ORNL) for assistance in preparing documents and developing technical information for the environmental review process.⁸⁸ Personnel from ORNL conduct a large portion of the research concerning technical matters, such as air quality, dispersion modeling, water quality, and risk assessment. ORNL operates under the direction of USATHAMA, responding to requests for the development of information and providing reports. USATHAMA is responsible for the preparation of adequate documentation to meet legal and regulatory requirements.

The Army began the environmental review process on January 30, 1984, when it published a Notice of Intent to prepare EIS's for the demilitarization of M55 rockets stored at ANAD, LBAD and UMDA.⁸⁹ The Army modified this plan to include all the M55 rockets in the Army stockpile, adding TEAD and PBA as locations involved in any disposal program planning. On April 9, 1985, the Army published a new Notice of Intent to prepare a single EIS reviewing the potential impacts resulting from the disposal of all M55 rockets in storage within the Continental United States (CONUS).⁹⁰

The Army broadened the M55 rocket disposal program to include the entire unitary chemical munitions and agent stockpile after the passage of the DOD Authorization Act of 1986 on November 8, 1985, which required the destruction of the entire stockpile.⁹¹ The Army published a new Notice of Intent on January 28, 1986, to prepare a Programmatic EIS, reviewing the alternatives as directed by the statute. The alternatives were:

- 1) no action—continued storage of the stockpile at its current locations;
- 2) the construction or modification, operation, and eventual decommissioning of separate disposal facilities at each of the CONUS storage locations;

⁸⁶CSDP, General Information, *supra* note 4, at 8.

⁸⁷DPEIS, *supra* note 10, at 1-12.

⁸⁸CSDP, General Information, *supra* note 4, at 8.

⁸⁹49 Fed. Reg. 3,679 (1984).

⁹⁰50 Fed. Reg. 4,064 (1985).

⁹¹50 U.S.C. § 1521 (Supp. III 1985).

3) transportation of the stockpile to regional disposal facilities to be constructed or modified, operated, and eventually decommissioned. Regional disposal sites were identified as ANAD and TEAD; and

4) transportation to a CONUS or outside CONUS national disposal facility to be constructed or modified, operated, and eventually decommissioned. TEAD was identified as the location being primarily considered for a national disposal facility.⁹²

The CEQ approved of the Army's plan for a programmatic EIS (PEIS) as a method for complying with NEPA.⁹³ The environmental documentation plan that the Army is pursuing is for the PEIS to be followed by site-specific environmental assessments (EA) or EIS's for each proposed disposal facility under the disposal program the Secretary of the Army chooses after he reviews the PEIS.⁹⁴ This procedure will involve the tiering of the later environmental documents to the earlier PEIS. Tiering of environmental documents is appropriate when an EIS has been completed on a broad program and further environmental documentation is necessary for actions within the scope of that program. CEQ has encouraged the elimination of repetitive review of the same issues and the focusing of environmental documents on a particular decision.⁹⁵ The Army selected the PEIS procedure followed by site-specific EA's and EIS's, because the program is national in scope, and would involve between eight and twenty separate states, depending upon the alternative the Army selects. The potential affected environments in the four alternatives are too broad to cover in a single EIS.⁹⁶ The PEIS will result in an initial decision as to which alternative the Army will pursue. After the Army prepares site-specific EA's and EIS's, it will make a decision concerning the specific sites. The Secretary of the Army's decision on which general course to pursue may change after a site-specific environmental review, which could reveal new facts or other considerations making that site unsuitable for the planned disposal or transportation operations.⁹⁷ Since a change to the general disposal program at one site would necessarily affect some other site, involving a change in at least one other site's disposal program, it is likely that a site-specific EA or EIS review which results in a decision to vary from the PEIS decision will require supplemental environmental docu-

⁹²51 Fed. Reg. 3,493 (1986).

⁹³DPEIS, *supra* note 10, at 1-9.

⁹⁴CSDP, General Information, *supra* note 4, at 8.

⁹⁵40 C.F.R. § 1502.20 (1986).

⁹⁶CSDP Public Hearings, *supra* note 22, at 3.

⁹⁷Edgewood Public Hearing on DPEIS, *supra* note 24 (Statement of Ms. Dinah Bear, Council on Environmental Quality).

mentation concerning the site whose disposal program is subject to change. The potential exists for this supplemental environmental review to reveal new considerations, necessitating a review of the site-specific EA or EIS that led to the supplemental environmental review and miring the Army in a seemingly never-ending cycle of documentation without a final decision. With that potential, I believe the decision authority will need to see a substantially different set of circumstances than the PEIS described to justify changing the approach that the PEIS determined. The critical factor, I believe, would be the discovery of greater risks to human health if the Army implemented the PEIS decision at a particular site.

In developing its draft PEIS (DPEIS), the Army followed the scoping guidelines of the CEQ regulations⁹⁸ to identify the major issues in the document and to receive input from both the public and government agencies. Government agencies held eight individual scoping meetings in the areas near storage sites. Federal agencies involved included EPA, HHS, Department of Transportation, Federal Emergency Management Authority, Occupational Safety and Health Administration, and the DOD Explosives Safety Board. State and local agencies included those involved with environmental protection, health, law enforcement, emergency management, and transportation.⁹⁹ During April and May of 1986, the Army conducted public scoping meetings at or near each CONUS storage location.¹⁰⁰ The level of public participation varied widely among the storage locations. Most comments concerned the actual risks and hazards of chemical agent disposal and transport, the health effects of exposure to chemical agents, the credibility of the Army, the need for emergency planning and evacuation, liability in case of an accident during operations, the adequacy of existing environmental studies and surveys, and the appropriateness of the PEIS procedure in contrast with site-specific environmental reviews.¹⁰¹

The Army released its DPEIS early in July 1986 and began the public comment procedure, conducting a second round of public hearings concerning the actual document. The deadline for comments was September 23, 1986.¹⁰² The public response to the DPEIS was so significant that the Army delayed the planned completion of the PEIS until the Army makes further studies. The Army plans to publish a final PEIS in late 1988.¹⁰³ The NEPA process currently stands at this

⁹⁸ 40 C.F.R. § 1501.7 (1986).

⁹⁹ DPEIS, *supra* note 10, at 1-11.

¹⁰⁰ *Id.* at 1-10.

¹⁰¹ *Id.* at 1-10.

¹⁰² 51 Fed. Reg. 24,571 (1986).

¹⁰³ 51 Fed. Reg. 45,383 (1986).

MILITARY LAW REVIEW

stage. The evaluation of public comments and particularly comments from agencies of federal, state and local governments is extremely critical to the process, because the Army must comply with all applicable federal, state, and local pollution control standards.¹⁰⁴ The existence of significant public opposition indicates a serious potential for the delay of the program due to litigation or political action. The Army must make every effort to answer the concerns that the public raised about the DPEIS.

IV. METHODS OF DISPOSAL

A. THE ARMY'S EXPERIENCE WITH CHEMICAL AGENT DISPOSAL

The Army did not begin its development of a chemical munitions disposal plan without some experience with potential technologies and methods available for the task. At many times during the over seventy years that the Army has produced chemical agents and munitions, it has also disposed of these substances. After World War II, the Allied powers captured significant amounts of German chemical stocks, which they then destroyed. The greatest deficiency in the evaluation of this experience is the lack of recorded data. Until approximately twenty years ago, the military kept few records regarding disposal operations. Another deficiency in evaluating the usefulness of past operations is the fact that, until recently, monitoring devices simply did not exist that could measure emissions at the extremely low levels necessary to evaluate the destructive efficiency of various techniques. There have been significant recent advances in monitoring technology, allowing an extensive monitoring program to be conducted.

The military services pursued three general methods of disposal of chemical agents and munitions prior to 1969: deep ocean placement; land burial; and open-pit burning.¹⁰⁵ In May 1969, DOD suspended plans for disposing of approximately 27,000 tons of chemical weapons by burial in the deep ocean due to public concerns over transporting the material and its effect on the ocean environment. Prior to this suspension, the Army conducted three chemical munitions disposal operations in ocean waters off the shores of the Eastern United States.¹⁰⁶ The Army buried approximately 60,000 M55 rockets in the ocean in

¹⁰⁴ Exec. Order No. 12,088, 3 C.F.R. 243 (1978).

¹⁰⁵ National Research Council, *supra* note 5, at 20.

¹⁰⁶ Office of the Program Manager for Chemical Demilitarization, Chemical Agent and Munition Disposal, Summary of the U.S. Army's Experience (Draft) 2-2 (1987) [hereinafter Summary].

concrete coffins, and burned another 36,000 in open pits at Dugway Proving Ground, Utah, between 1966 and 1968.¹⁰⁷ The Army has not used open-pit burning for almost twenty years, and this is not a reasonable disposal method. A 1979 open-pit burning of smokepots at LBAD, which are far less toxic than any agents in the inventory, apparently caused some nearby residents to seek hospital treatment after inhaling the fumes released.¹⁰⁸

The Army has evaluated over 300 destruction concepts over the past several years in an attempt to find the safest, most practical method to dispose of these agents and munitions.¹⁰⁹ Two technologies revealed some potential and have received the greatest research efforts: chemical neutralization of agents; and the incineration of agents and munitions. The Army considered other potential methods, including deep ocean placement and destruction by underground nuclear explosion. The Army rejected deep ocean placement because of its unknown effects and the need for an exemption under the Marine Protection, Research, and Sanctuaries Act of 1972.¹¹⁰ The Army rejected the option of nuclear explosions due to the difficulty in determining an acceptable site, obtaining necessary approvals, the uncertain costs involved, and questionable public acceptance.¹¹¹

The Army has tested chemical neutralization processes extensively during the past several years and has developed data reflecting their feasibility as a method of disposing of all agents in the inventory. Between September 1979 and April 1981, the Army disposed of 13,951 M55 rockets containing GB with chemical neutralization at TEAD. Subsequent testing involved the destruction of 12,673 155 millimeter and 105 millimeter projectiles filled with GB between July 1981 and July 1982. These tests, and others during the past several years, have destroyed a total of approximately 8.4 million pounds of nerve agent GB by chemical neutralization. Four general difficulties surfaced during this testing. These were:

- 1) the chemical reaction was extremely slow, taking up to three weeks to complete;
- 2) the chemical reaction was extremely complex and required very large amounts of caustic sodium hydroxide;
- 3) under certain conditions the chemical reaction appeared to be reversible with small quantities of GB reforming; and

¹⁰⁷ M55 Rocket Study, *supra* note 11, at 46.

¹⁰⁸ Subcommittee Hearings, *supra* note 57 (Statement of Mr. Tom Fitzgerald).

¹⁰⁹ Concept Plan, *supra* note 60, at 1-14.

¹¹⁰ 16 U.S.C. §§ 1431-34 (1982).

¹¹¹ DPEIS, *supra* note 10, at 2-25-2-26.

4) the process created very large quantities of organic salts as a waste product, far in excess of the amount predicted. Approximately five pounds of salt wastes were being created for each pound of GB neutralized, which caused a significant disposal problem.¹¹²

Tests conducted of chemical neutralization of VX revealed that this process was even more uncertain than the chemical neutralization of GB. VX has not been subject to chemical neutralization at even the pilot plant scale due to apparent difficulties. The reaction that develops with VX is highly exothermic, and there is a risk of explosion.¹¹³ Mustard agents have also been subject to experimentation concerning the prospects of chemical neutralization, but mustard's low solubility would require higher temperatures and pressures during the process. The somewhat varied composition of mustard agents appears to result in differing products of the reaction process.¹¹⁴ This is because most of them are very old and not manufactured under technical conditions which created absolutely identical end products.

Overall, the prospects for chemical neutralization of mustard and nerve agents do not appear to be good. The process has proved to be significantly more expensive than its primary competing technical process, incineration.¹¹⁵

Incineration has received very extensive testing over recent years, and it is the most promising technology for chemical agent and munition destruction. In August 1969, the Army established Project Eagle at Rocky Mountain Arsenal, Colorado, to dispose of ton containers of mustard agent by incineration. Between August 1972 and February 1974, the Army incinerated approximately 6,179,000 pounds of H and HD.¹¹⁶ The project also tested bulk drainage methods of the ton containers.¹¹⁷

Project Eagle provided important information and experience concerning the incineration of mustard agents. The process did not result in the discharge of any liquid effluent.¹¹⁸ This is an important consideration since any liquid effluents requiring discharge would need to be treated and permits obtained pursuant to the Federal Water Pollution Control Act,¹¹⁹ involving a variety of federal, state and local authorities. The project also demonstrated the relative safety of the

¹¹²Summary, *supra* note 106, at 3-5, 3-50-3-51.

¹¹³*Id.* at 3-71.

¹¹⁴*Id.* at 3-71.

¹¹⁵National Research Council, *supra* note 5, at 70.

¹¹⁶Summary, *supra* note 106, at 2-10, 2-15, 4-5.

¹¹⁷Concept Plan, *supra* note 60, at 2-11.

¹¹⁸Summary, *supra* note 106, at 4-14.

¹¹⁹33 U.S.C. §§1251-376 (1982).

process. During the mustard incineration, there were only four confirmed exposures to agent, all of which were minor, indicating millions of pounds of this material could be handled and destroyed without serious injury.¹²⁰ The promising results of early testing caused research efforts to be increased in this area and nerve agent incineration to undergo extensive testing.

The Army built a facility at TEAD to conduct tests on the disposal of chemical agents and munitions. This facility, the Chemical Agent Munitions Disposal System (CAMDS), is a prove-out facility for developing and testing disposal technology.¹²¹ CAMDS is about one-third the size of the facilities that the Army is considering for conducting the actual disposal program.¹²² CAMDS has tested both neutralization and incineration of agents during its existence, but recent efforts have been focused on incineration. The Army has used CAMDS to incinerate about 265,000 pounds of agent, including 75,000 pounds of GB and 8,000 pounds of VX, between December 1979 and August 1986.¹²³ The operation at CAMDS has two primary objectives: the demonstration of equipment and processes for disposal of lethal chemical materials under large-scale demilitarization conditions; and the disposal of unserviceable chemical materials.¹²⁴ The focus of activity at CAMDS is not on the actual disposal of agents and munitions, but on testing disposal processes, equipment, and procedures for future use.¹²⁵ The CAMDS facility can be modified to become a full-scale chemical agent and munition destruction facility.¹²⁶

At CAMDS, the equipment operations are remotely controlled and monitored. A computer program is used which contains a series of "GO-NO GO" situations, and shuts down the process if a "NO GO" situation is encountered and until it is corrected.¹²⁷ CAMDS utilizes an extensive monitoring system, with monitors inside the facility and along the installation perimeter to monitor the ambient air.¹²⁸ The

¹²⁰Office of the Department of the Army Project Manager for Chemical Demilitarization and Installation Restoration, Project Eagle-Phase I, Bulk Mustard Demilitarization at Rocky Mountain Arsenal, Denver, CO, Final Report 5-45 (1975).

¹²¹Concept Plan, *supra* note 60, at 1-12.

¹²²DPEIS, *supra* note 10, at 1-5.

¹²³Summary, *supra* note 106, at 2-22.

¹²⁴Office of the Project Manager for Chemical Demilitarization and Installation Restoration, Operation of the Chemical Agent Munition Disposal System (CAMDS) at Tooele Army Depot, Utah, Final Environmental Impact Statement 3 (1977) [hereinafter CAMDS FEIS].

¹²⁵Summary, *supra* note 106, at 4-47.

¹²⁶Concept Plan, *supra* note 60, at 1-13.

¹²⁷U.S. Army Toxic and Hazardous Materials Agency, Final Demilitarization Plan for Operation of the Chemical Agent Munitions Disposal System (CAMDS) at Tooele Army Depot, Utah 22 (1983) [hereinafter CAMDS Final Plan].

¹²⁸CAMDS FEIS, *supra* note 124, at 21.

CAMDS facility contains three separate furnaces, a metal parts furnace, a deactivation furnace system, and a liquid incinerator, with separate pollution abatement systems discharging flue gases through a common stack. The pollution abatement systems utilize a Venturi Scrubber, which is designed to remove 95% of all particles larger than 0.5 microns contained in the flue gases.¹²⁹

The Surgeon General of the Army has established and the EPA has reviewed emission standards for GB, VX, and mustard agents. These emission standards are 0.0003 mg/m³ averaged over two hours for GB, 0.00003 mg/m³ averaged over two hours for VX, and 0.03 mg/m³ averaged over one hour for mustard.¹³⁰ The design standards for stack emissions at CAMDS are identical to the Surgeon General's standards, but utilize a one hour average for GB and VX, a slightly more restrictive standard.¹³¹

All operations at CAMDS that have the potential to result in explosion are conducted in an explosive containment room, consisting of a steel cylinder with walls two and one-half inches thick.¹³² M55 rockets are treated differently than projectiles and cartridges. While projectiles and cartridges are disassembled to gain access to their components, rockets are drained and then cut into sections in a rocket shear machine for processing through the deactivation furnace system.¹³³ This procedure is considered safer than any involving disassembly, because the rockets contain propellant. The bursters from these projectiles are cut into pieces before they are incinerated to control their burn rate and to minimize the possibility of detonation.¹³⁴ Bursters and other explosives are incinerated in the deactivation furnace, metal parts such as shell casings in the metal parts furnace, and liquid agent in the liquid incinerator.

All processing areas at CAMDS are maintained at negative pressure to insure that any agent vapor released is captured by the ventilation system and processed through charcoal filters before being released into the general atmosphere.¹³⁵ Air locks are maintained in CAMDS for the movement of personnel and equipment between sections of the facility. Continuous monitoring of the ventilation system insures proper airflow through the facility. Agent detectors monitor work areas and the filter system for the presence of agent.¹³⁶ Dual

¹²⁹Summary, *supra* note 106, at 5-12, 5-16.

¹³⁰National Research Council, *supra* note 5, at 81.

¹³¹Summary, *supra* note 106, at 4-56.

¹³²*Id.* at 2-19.

¹³³CAMDS Final Plan, *supra* note 127, at 54.

¹³⁴*Id.* at 52.

¹³⁵*Id.* at 71.

¹³⁶*Id.* at 71.

detectors are used for agent monitoring, with automatic detectors with rapid response times being used to warn of hazardous situations and low level sampling devices being used to monitor lower levels of agent concentration.¹³⁷ The perimeter monitors located around the installation boundary are to detect any agent releases that might escape the installation and threaten nearby individuals. The system has been operated and monitored since 1979 and, to date, there has never been agent detected at a perimeter monitor.¹³⁸

Although extensive testing had been conducted, the results of monitoring activity at CAMDS had not been completed and published at the time the DPEIS was released. The Governor of Kentucky criticized this lack of specific information during hearings held in Richmond, Kentucky, by the Subcommittee on Investigations of the House Armed Services Committee.¹³⁹ Recently, the data from stack monitoring during testing has become available and indicates that the furnaces at CAMDS are operating at high levels of efficiency. Data collected during tests conducted with GB between December 1985 and February 1986 of the liquid incinerator, the primary agent incinerator, showed no confirmed agent in stack readings and a destruction and removal efficiency of 99.99987%. These tests also indicated excessive concentrations of particulates in the stack gas, but that problem is considered minor and able to be remedied by adjusting the liquid flow rate.¹⁴⁰ The deactivation furnace, important because it is the primary furnace used in the destruction of M55 rockets, was tested in May 1986 with drained GB M55 rockets, and the emissions sampling revealed no GB agent in the stack exhaust and a destruction and removal efficiency estimated to exceed 99.9999%. The exhaust gases and furnace residue were also tested for products of incomplete combustion, and no hazardous compounds were discovered.¹⁴¹ The metal parts furnace has been tested with GB filled projectiles and agent at a feed rate of 550 pounds per hour, with no agent detected in the stack monitoring, and a destruction and removal efficiency greater than 99.99999% indicated.¹⁴² VX incineration tests conducted in the metal parts furnace were also promising, revealing no agent in the stack emissions, destruction and removal efficiency estimated at greater than 99.999998%,

¹³⁷ *Id.* at 85.

¹³⁸ Health Aspects of Emergency Response Plan, 1987: Hearings on Chemical Stockpile Disposal Program Before the Center for Environmental Health, Center for Disease Control (1987) (Statement of Charles Baronian, Office of the Program Manager for Chemical Demilitarization) [hereinafter Health Plan].

¹³⁹ Subcommittee Hearings, *supra* note 57 (Statement of Martha L. Collins, Governor, State of Kentucky).

¹⁴⁰ Summary, *supra* note 106, 4-110.

¹⁴¹ *Id.* at 4-47-4-81.

¹⁴² *Id.* at 4-93-4-96.

and particulate emissions within standards.¹⁴³ These test results give reason for significant optimism in the ability of the incineration furnaces to completely destroy the agent without harmful emissions.

The incineration process yields hazardous waste products in the form of salts, which are the result of processing the brine from the pollution abatement systems. Incineration of GB produces hydrogen fluoride and phosphorous pentoxide, incineration of VX produces phosphorus pentoxide, and the incineration of H agents produces hydrogen chloride.¹⁴⁴ The waste salts must be handled, stored, and disposed of in accordance with the Resource, Conservation and Recovery Act of 1976 (RCRA).¹⁴⁵

An additional concern in the destruction of the M55 rockets is that the shipping and firing tubes of some of these rockets contained polychlorinated biphenyls (PCB's)¹⁴⁶ The Toxic Substances Control Act (TSCA)¹⁴⁷ specifically regulates these hazardous compounds. The presence of PCB's in the shipping and firing tubes requires that the incineration of those materials must meet the standards set by EPA.¹⁴⁸ The Army conducted tests of the efficiency of PCB incineration at CAMDS in March 1986. The tests revealed difficulties in determining that the required destruction efficiency was being met. It appeared that the approved EPA analytical procedures were not sufficiently sensitive to demonstrate the required 99.9999% destruction and removal efficiency. The test burns conducted did show destruction and removal efficiency between 99.9966% and 99.9996%. HHS concluded that this level of efficiency did not result in emissions which were a threat to human health.¹⁴⁹ However, EPA is responsible under TSCA for the regulation of PCB's and will have final approval authority over any system the Army plans to use for the destruction of these shipping and firing tubes. The present system at CAMDS shears the rockets within the firing tubes to avoid excessive handling and then destroys the entire munition and casing in a single furnace. This system appears to be the best method for rocket disposal due to the demonstrated hazard that exists when M55 rockets are handled. The solution to the PCB incineration problem should be attained by working with EPA and HHS to certify testing requirements and insure that resulting emissions are not a danger to human health. The po-

¹⁴³Id. at 4-100.

¹⁴⁴U.S. Army Toxic and Hazardous Materials Agency, RCRA Part B Permit for the JACADS, C-1.b (Aug. 1985) [hereinafter JACADS RCRA Permit].

¹⁴⁵42 U.S.C. §§ 6901-87 (1982).

¹⁴⁶CSDP, General Information, *supra* note 4, at 5.

¹⁴⁷15 U.S.C. §§ 2601-29 (1982).

¹⁴⁸40 C.F.R. § 761.70(b) (1986).

¹⁴⁹Summary, *supra* note 106, at 4-67, 4-71.

tential does exist for the destruction program to be delayed, at least regarding M55 rockets, due to this additional layer of review. If EPA approved test procedures cannot verify the required destruction efficiency, the Army may obtain a waiver from either the Regional Administrator or Assistant Administrator for Pesticides and Toxic Substances on the basis that the operation of the incinerator will not present an unreasonable risk of injury to health or the environment.¹⁵⁰ The Army should obtain such a waiver, if necessary to proceed expeditiously with the program, since the demonstrated deterioration of the M55 rocket stockpile discussed earlier makes the destruction of these munitions both time sensitive and an important public health concern. HHS has already determined that the resulting emissions from the test incinerator are not a threat to human health.

The facility under construction at Johnston Atoll, known as the Johnston Atoll Chemical Agent Disposal System (JACADS), while not yet in operation, does represent in its design the Army's current state of technical knowledge in the chemical agent disposal field. JACADS was developed from the experience at CAMDS.¹⁵¹ JACADS uses thermal destruction for agents in munitions, and for propellants, fuzes, explosives, and other materials. Metal components of munitions are thermally treated to ensure the complete destruction of any residual agent.¹⁵²

JACADS is designed to destroy virtually all of the different types of chemical munitions in the existing stockpile. JA has all types of munitions in storage except for one type of bomb and the aircraft-mounted spray tanks containing VX.¹⁵³ This facility is scheduled to be completed in 1988 and begin disposal operations in 1989.¹⁵⁴ The facility is designed using mechanical processes to access the agent in munitions and then incinerating liquid agent, explosives, and metal parts in separate incinerators, similar to CAMDS.¹⁵⁵ JACADS is designed with an explosive containment room of steel and concrete, which is constructed to totally contain any blast, fragments, and vapor in the event of the explosion of a munition.¹⁵⁶ This is an improvement over the CAMDS design. Although JACADS is located in an extremely remote location far from any populated area, its initiation did create some controversy. Public officials in Hawaii expressed con-

¹⁵⁰ 40 C.F.R. § 761.70(d)(5) (1986).

¹⁵¹ Concept Plan, *supra* note 60, at 1-12.

¹⁵² CSDP, General Information, *supra* note 4, at 10.

¹⁵³ Concept Plan, *supra* note 60, at 1-13.

¹⁵⁴ CSDP, General Information, *supra* note 4, at 6-7.

¹⁵⁵ DPEIS, *supra* note 10, at 1-5.

¹⁵⁶ JA FEIS, *supra* note 48, at 23.

cern over this planned chemical munitions disposal facility and submitted comments during the EIS process recommending transportation of the stockpile on JA back to CONUS for disposal.¹⁵⁷

In addition to the chemical agent disposal experience detailed above, the Army also operates another system designed to deactivate chemical munitions as needed for safety reasons. This system is known as the Drill and Transfer System (DATS). DATS is a transportable system that drains agent from munitions. The munitions casings are chemically decontaminated, fractured by detonation in a special chamber, and stored for thermal decontamination. The drained agent is stored in suitable containers for subsequent disposal. DATS is a very small operation that is only capable of handling between approximately three and six munitions each day.¹⁵⁸ It is an expensive operation, costing approximately \$15,000 to process a single munition.¹⁵⁹ The DATS is considered unsatisfactory and has been recommended for deactivation.¹⁶⁰

An innovation currently undergoing tests as CAMDS is a process known as cryofracture. Cryofracture involves cooling munitions in liquid nitrogen, fracturing them with a hydraulic press to expose the agent and explosives inside, and then incinerating the explosives and agent in a single incinerator.¹⁶¹ This avoids the disassembly of the munitions. The Army built a prototype line at CAMDS, tested this prototype with simulated munitions, and conducted comprehensive verification tests in 1987.¹⁶² If cryofracture proves to be a safer handling method than munitions disassembly, it could be incorporated into plant designs. A limitation on cryofracture is that it is not feasible to use with the M55 rockets; their aluminum casing does not become brittle at low temperatures, unlike steel-bodied munitions.¹⁶³

The Army experience with disposal technology has shown that incineration has significant advantages over other potential technologies. Incineration has been demonstrated to be superior to chemical neutralization in that it results in more rapid destruction of agents, non-reversible byproducts of the process, waste products that are inorganic, and has the potential for lower costs.¹⁶⁴ The inorganic waste salts produced by incineration are fairly simple compounds presenting

¹⁵⁷Id. at C-15-C-19.

¹⁵⁸Concept Plan, *supra* note 60, at 1-13.

¹⁵⁹Commission, *supra* note 1, at 59.

¹⁶⁰Id. at 59.

¹⁶¹CSDP, General Information, *supra* note 4, at 12.

¹⁶²Id. at 12.

¹⁶³National Research Council, *supra* note 5, at 138.

¹⁶⁴CAMDS Final Plan, *supra* note 127, at 8.

fewer disposal problems than the caustic organic residues from chemical neutralization.¹⁶⁵ Incineration has been increasingly used by private industry as a disposal method for PCB's, pesticides, herbicides, and other similar material.¹⁶⁶ The incineration technology has been determined to be the preferred disposal method by both the Task Force of the American Society of Mechanical Engineers and the 1984 National Academy of Sciences panel which reviewed the issue.¹⁶⁷ Incineration clearly is the appropriate technology on which to base the planned chemical munitions disposal program.

B. THE PLANNED CHEMICAL DISPOSAL PROGRAM

The Army has developed its disposal program planning following the guidance it has received from Congress, which was discussed earlier. The DPEIS reviewed four alternatives: continued storage (i.e., no action); on-site disposal at all current storage locations without transportation of agents or munitions between installations; the use of two regional disposal centers; and the use of a single national disposal center.¹⁶⁸ The alternatives were evaluated based upon twelve criteria. The criteria were not given specific weights but were listed in order of priority. These twelve criteria in order of relative importance were:

- 1) the potential public safety and health impacts of large-scale accidents;
- 2) the likelihood of incurring one or more casualties;
- 3) the public health risk distribution;
- 4) the susceptibility to sabotage or terrorism;
- 5) the technological complexity;
- 6) the public acceptability;
- 7) the regulatory complexity;
- 8) the cost of the program;
- 9) the compatibility with legislative policy;

¹⁶⁵ CSDP, General Information, *supra* note 4, at 10.

¹⁶⁶ Summary, *supra* note 106, at 4-2.

¹⁶⁷ Subcommittee Hearings, *supra* note 57 (Statement of Task Force of the Environmental Affairs Committee, American Society of Mechanical Engineers); National Research Council, *supra* note 5, at 68.

¹⁶⁸ DPEIS, *supra* note 10, at 1-4.

- 10) the management control complexity;
- 11) the schedule of operations; and
- 12) the impact on military resources.¹⁶⁹

All alternatives involving disposal anticipate the use of contractors. Adequate insurance is not available, requiring blanket indemnification by the United States.¹⁷⁰ The analyses involved to determine the risk to the public from operations identified over 300 potential accidents that could result from storage, handling, transport, or disposal. Agent releases were not considered a risk to the public unless they had effects beyond a distance of at least one kilometer, since storage facilities and planned disposal facilities were all located at least that distance from the installation boundaries.¹⁷¹ In attempting to estimate the potential casualty effects of accidental agent releases, a very large amount of uncertainty was involved. The accuracy of estimates based upon predicted dispersion of chemical agents could be considered no more than plus or minus fifty percent.¹⁷² The plan anticipates acquisition of facilities by using technical requirements defined by the government, due to the government's technological experience, and selection of private contractors to build, equip and operate the facilities.¹⁷³ Construction estimates range between three and four years depending upon which alternative is selected.¹⁷⁴

The plan of operations for any disposal facility involves the processing of only one munition type or bulk agent at any given time, ensuring that only a single agent is being disposed of within the facility. The monitoring and detection equipment within the facility would be designed specifically for the agent and munition being processed. It would be necessary to change monitoring and detection devices when there is a change in the agent being processed.¹⁷⁵ Plant operations would be initiated at a reduced rate after a process of training and simulation. The plant would begin actual disposal operations only after it is determined that all safety requirements are met.¹⁷⁶ A medical surveillance program is planned which would develop baseline health profiles on employees and provide periodic checks of workers' health.¹⁷⁷ Before beginning disposal operations at any

¹⁶⁹*Id.* at 2-13.

¹⁷⁰Concept Plan, *supra* note 60, at 6-8.

¹⁷¹DPEIS, *supra* note 10, at 1-18, 1-22.

¹⁷²CSDP, Public Hearings, *supra* note 22, at 42.

¹⁷³Concept Plan, *supra* note 60, at 6-3.

¹⁷⁴*Id.* at 3-21.

¹⁷⁵DPEIS, *supra* note 10, at C-3.

¹⁷⁶Concept Plan, *supra* note 60, at 7-5; DPEIS, *supra* note 10, at 2-3.

¹⁷⁷Concept Plan, *supra* note 60, at 5-6.

facility, the physicians assigned to those installations will receive training in the handling of chemical casualties.¹⁷⁸ After munitions have been processed through the facility, the resulting ashes and salts which are determined to be hazardous wastes would be drummed and transported to an approved hazardous waste landfill.¹⁷⁹ When all disposal operations are complete, the facility would undergo decontamination, disassembly, and final clean-up of the plant site.¹⁸⁰

The planned disposal facilities would be very similar to CAMDS, using four furnaces. There would be a deactivation furnace for explosive components, a metal parts furnace to decontaminate projectiles and bulk containers, a liquid incinerator to destroy liquid agent and spent decontamination solution, and a dunnage incinerator to burn packing material and assorted other waste. The incinerators operate at very high temperatures, 1600–2600°F, and use afterburners to insure complete combustion. All solids are held at a temperature of 1000°F for fifteen minutes to insure decontamination. The design of the two stage incinerators is such that either stage, by itself, is sufficient to incinerate the material.¹⁸¹ The metal parts furnace, liquid incinerator, and deactivation furnace use wet pollution abatement systems, which cool exhaust gases with caustic brine. The brine is scrubbed, and the acid gases are neutralized and then run through a demister for final particle removal. The dunnage incinerator also uses caustic solution, but incorporates a baghouse to separate solids from the exhaust.¹⁸² The brine solution is treated in rotary double drum dryers, where it is heated to evaporate water, and the remaining dried salts are then disposed of in an appropriate landfill.¹⁸³

The facilities will include extensive use of agent monitors to detect any releases of agent that could pose a threat to workers. There have been significant efforts expended during recent years to improve the detection capability and reduce the response time of agent monitors. Existing agent detectors are adequate to detect agents at the levels of exposure determined by the Surgeon General of the Army. The best generally available monitor in the current inventory is the XM22 Automatic Chemical Agent Detector Alarm, which can detect VX at 0.01 mg/m³, GB at 0.02 mg/m³ and H at 2.0 mg/m³ within approximately one minute.¹⁸⁴ Specific information concerning planned mon-

¹⁷⁸Id. at 5-5.

¹⁷⁹DPEIS, *supra* note 10, at C-17.

¹⁸⁰Id. at 2-3.

¹⁸¹Id. at C-8-C-12.

¹⁸²Id. at C-12.

¹⁸³Id. at C-12.

¹⁸⁴Emergency Response Concept Plan, *supra* note 39, at I, 15-3.

itoring systems was not included in the DPEIS. EPA has recommended, however, that the final EIS be expanded to include more detailed information concerning monitoring systems and their capabilities, including any linkage to automatic shutdown equipment that would stop plant operations in the event that the system detected excessive concentrations of agent.¹⁸⁵ This stack monitoring, as done at CAMDS, is conducted at the lowest concentrations possible to monitor. Any concentrations detected at such levels are considered not to be a threat to public health, but they are important for identifying any possible deficiencies in the plant operations that may require corrective action.¹⁸⁶ The monitoring system installed at any disposal facility needs to be integrated with a warning system for both the installation and civilian community. While plant detectors will give warning to plant personnel if agent levels reach hazardous concentrations, a particular detection level must be established to trigger a warning system beyond the plant confines. The Mayor of Tooele, Utah, stated during a Public Health Service meeting that a standard of emissions should be established which, if discovered by the stack monitoring system, would require notification to the public.¹⁸⁷ To develop these standards the Army will need to work closely with HHS personnel and determine what levels of concentration should require public notification and how broad such notification should be. While no risk to public health should be accepted, the concentrations determined must also not be set too low, because the ensuing public response could be far out of proportion to any health threat and could easily be more dangerous than the emissions levels detected.

For the monitoring system to be accurate, it is necessary to develop baseline data. The planned monitoring system is intended to be operational two years before any operations begin at a disposal site, and a one-year collection of data is planned to establish the baseline conditions at that location.¹⁸⁸ Due to the anticipated construction time required to complete any plant and the pre-operational testing and verification procedures necessary prior to operations with any chemical agents, the lead time required to emplace monitors and develop baseline data should not delay the start of any site's disposal program.

Regardless of which alternative is selected, the program will require extensive efforts in the area of emergency response planning. HHS has already commented on the DPEIS, citing deficiencies in

¹⁸⁵ Letter from U.S. Environmental Protection Agency to Program Manager for Chemical Demilitarization (Sept. 23, 1986) (Comment 0109 to DPEIS).

¹⁸⁶ Health Plan, *supra* note 138 (statement of Mr. Charles Baronian).

¹⁸⁷ *Id.* (Statement of Mayor George Diehl, Tooele, Utah).

¹⁸⁸ DPEIS, *supra* note 10, at 4-91.

emergency planning in communities outside the storage installations.¹⁸⁹ Emergency planning has not received significant attention during the decades of storage, especially beyond the boundaries of the installations concerned. The civilian communities are often operating on very limited budgets, restricting their ability to test emergency response plans. There also has not been a sense of urgency to commit resources to such a program, because decades have passed without an emergency situation developing.

In general, there would be a need to give emergency notification in the immediately threatened vicinity of any agent release, whether at a disposal site or along a transportation corridor. Depending upon a wide variety of factors, such as size of release, agent involved, and weather conditions, this area could extend to about ten kilometers from the scene.¹⁹⁰ The goal would be 100% notification to the threatened public. Emergency management personnel have already raised concerns about any operations being conducted after daylight hours due to the additional difficulty involved in conducting emergency operations in darkness.¹⁹¹ The planning involved for emergency response along transportation routes or at disposal sites needs to give special consideration to certain groups that may be in the area, such as hearing impaired persons, mobility impaired persons, children, hospital patients, nursing home residents, prison populations, and similar groups.¹⁹² The identifying of such groups, maintaining current records, and developing an effective notification system in itself will be an extremely complex management task. It is clear that any program will involve significant efforts and detailed planning. Even such basic concerns as distribution of treatment drugs for chemical agent exposure involve complex prior planning, because the drugs are prescription drugs, making them more difficult to distribute to emergency health workers.¹⁹³ The issue of funding for the revision of emergency plans, for obtaining additional equipment, and for conducting exercises has been raised in public comments to the DPEIS.¹⁹⁴ The cost of such efforts may have an impact on the final choice of which alternative to pursue.

During a public hearing in Richmond, Kentucky, concerning the DPEIS, a representative of the Kentucky Environmental Quality

¹⁸⁹Letter from U.S. Department of Health and Human Services to Program Manager for Chemical Demilitarization (Sept. 19, 1986) (Comment 0078 to DPEIS).

¹⁹⁰Emergency Response Concept Plan, *supra* note 39, at I, 9-9.

¹⁹¹Health Plan, *supra* note 138 (Statement of Mr. Sam Slone, Director of Emergency Management, Calhoun County, Alabama).

¹⁹²Emergency Response Concept Plan, *supra* note 39, at I, 10-1.

¹⁹³*Id.* at I, 13-2.

¹⁹⁴Letter from Oregon Department of Natural Resources to Program Manager for Chemical Demilitarization (Sept. 19, 1986) (Comment 0074 to DPEIS).

Council criticized the Army for failing to bring local communities into the decision making process for selecting an alternative program for the disposal of chemical agents and munitions.¹⁹⁵ This concern has caused the Army to take a novel approach to the review process and could provide an interesting precedent in NEPA procedures. Under Secretary of the Army James Ambrose was present at this public hearing and stated that he would be willing to consider having the Army contract with and fund an organized group of qualified personnel representing the range of community views. Such group would provide an independent review of program information and data.¹⁹⁶ This initiative resulted in offers being made at all storage sites for citizen groups to review and report on the program information. Three criteria were developed for the groups: that there be community concern over planned Army operations; that the applicant group be representative of the community; and that the applicant group have available to it requisite expertise to conduct an independent assessment. The Army eventually awarded contracts to five such groups between January and May 1987, one each at AGP, NAAP, UMAD, PBA and LBAD. Each contact cost approximately \$100,000. It is believed that this effort will give local communities a better understanding of the complexities involved in the program.¹⁹⁷ It remains to be seen whether this approach to community involvement in the review of information and in the submission of independent reports to the decision-making authority in the NEPA process enhances the quality of environmental review. The effort appears clearly within the broad Congressional policy as stated in NEPA¹⁹⁸ and may have significant positive influence on public understanding of the program. There is a risk, however, that if the disposal alternative finally selected involves transportation through other communities, those communities may claim that the decision was overly influenced by the government-funded citizen studies conducted only by citizen groups at storage locations, and that communities which would be concerned only in the event of the selection of an alternative involving transportation were unjustifiably limited in their participation in the decision-making process. This process may have created new grounds for legal challenges to the NEPA process.

¹⁹⁵Chemical Stockpile Disposal Program Draft Programmatic Environmental Impact Statement, 1986; Public Hearing conducted at Richmond, Kentucky (1986) (Statement of Ms. Leslie Cole, Kentucky Environmental Quality Council) [hereinafter Kentucky Public Hearing on DPEIS].

¹⁹⁶*Id.* (Statement of James R. Ambrose, Under Secretary of the Army).

¹⁹⁷U.S. Army Toxic and Hazardous Materials Agency, Information Paper, Subject: Community Review Support Contract (May 27, 1987).

¹⁹⁸42 U.S.C.A. § 4331(a) (1983).

C. CONTINUED STORAGE OF THE STOCKPILE

Even though the Army was directed to review three different programs for chemical agent disposal, utilizing on-site, regional, and national disposal facilities, the DPEIS also briefly reviewed the effects of the continued storage of the stockpile. This was the "no action" alternative that was required to be included pursuant to the Council of Environmental Quality regulations.¹⁹⁹ The impacts of continued storage were considered to be minimal, involving only emergency planning, security, and maintenance operations. Storage was not considered indefinite but evaluated based upon its continuing for another twenty-five years.²⁰⁰ While it is arguable whether consideration of continued storage was required under NEPA due to the specific Congressional directive that "the Secretary of Defense . . . shall . . . carry out the destruction of the United States' stockpile of lethal chemical agents and munitions"²⁰¹ by September 30, 1994, it was prudent to formally consider the alternative in the DPEIS rather than risk a later delay in the program if a reviewing court determined that the law required consideration of a "no action" alternative. Continued storage is clearly not a viable alternative that can be pursued concerning this program, not only because it violates the Congressional mandate cited above but because it also is dangerous from a public health perspective. The previously discussed M55 rocket studies have documented that those munitions are subject to continuing deterioration the longer they are allowed to exist. Furthermore, the stabilizer in their propellant continues to deteriorate over time. Other munitions do not present such an immediate disposal concern but have also suffered some leakage and can be expected to deteriorate over time. It is an absolute necessity that efforts begin towards the safest possible disposal of these agents and munitions. In the final EIS reviewing the program, the safety risks from continued storage should receive greater emphasis, which should assist in developing a better public understanding of the need for this disposal program.

D. THE NATIONAL DISPOSAL CENTER ALTERNATIVE

The alternative of using a single national disposal site has been subject to significant review by the Army in its Chemical Stockpile Disposal Plan and DPEIS. The use of a single site requires all other

¹⁹⁹ 40 C.F.R. § 1502.14(d) (1986).

²⁰⁰ DPEIS, *supra* note 10, at 2-38-2-39.

²⁰¹ 50 U.S.C.A. § 1521(a)(1) (Supp. 1987).

chemical agents and munitions to be transported to that disposal location. TEAD was the obvious candidate for any national disposal center due to the large proportion (over forty percent) of the stockpile located there, its relatively remote location, and the experience that exists there from the operation of the CAMDS facility. Initial planning considered rail transport as the preferred method of moving the CONUS stockpile to TEAD. Rail is believed safer, more secure and less disruptive than other possible shipment modes, such as air or ground transportation. Even though TEAD has such a large proportion of the CONUS stockpile, the national disposal center alternative would involve transporting approximately fifty-one percent of the stockpile through twenty states.²⁰² It would be necessary to construct five separate disposal facilities at TEAD, three for munitions and two for agents in bulk containers, in order to meet the 1994 disposal deadline. These facilities would operate from three to four years.²⁰³

The Army considered Johnston Atoll as a national disposal center. The selection of JA would require transportation of over ninety percent of the chemical stockpile the far greater distance necessary to reach JA. Unless air transport for the entire stockpile were attempted, there would be at least one transfer between transportation modes. Although JA is an extremely isolated facility far removed from any population centers, there were five primary disadvantages to using JA as a national disposal center. These were:

- 1) the lack of adequate sites at JA where a national disposal facility could be constructed and for storage of the chemical stockpile transported into JA;
- 2) the chemical stockpile could not be transported and destroyed rapidly enough to meet the September 30, 1994, disposal deadline;
- 3) JA has inadequate utilities available on site for the support of such a scale of disposal process and the necessary facilities;
- 4) the wharf space and staging areas on JA are inadequate for the handling of the quantities of agents and munitions which would be involved; and,
- 5) JA is remote from any supply sources, making the logistical support of any national disposal center operation there extremely difficult.²⁰⁴

²⁰²DPEIS, *supra* note 10, at vii.

²⁰³CSDP, General Information, *supra* note 4, at 15-17; Concept Plan, *supra* note 60, at 3-3.

²⁰⁴DPEIS, *supra* note 10, at 2-24; Concept Plan, *supra* note 60, at 5.

The detailed review of the capabilities of JA to support a national disposal center determined that there is simply insufficient space for such a facility and that the necessary infrastructure to support such an operation could not be developed.

To reduce construction requirements at TEAD, the Army considered placing all national disposal center facilities into a single building instead of constructing the five separate facilities that are currently considered necessary. It was determined that if all disposal operations were located within a single facility, the necessary change-over operations to handle different agents and munitions could not be conducted rapidly enough to meet the 1994 disposal deadline set by Congress.²⁰⁶

In evaluating human health considerations involved in using a single national disposal center, the total population at risk from any agent release had to be considered for both the area near TEAD and for all areas along the transportation route. Since this route necessarily passes through some high-density population areas, such as Salt Lake City, Utah, the total population at risk from any accident was considered to range from about 16,000 up to as many as 10.1 million people in the event of a serious transportation accident in a densely populated area. Overall the human health risk which would be involved with the use of a single national disposal center was considered greater than other disposal alternatives due to the greater transportation that would be required.²⁰⁶

The possible environmental effects of the national disposal center alternative involve similar considerations. While TEAD, due to its remote location, involves less risk to some aspects of the physical environment, such as water quality (due to the arid climate), these reduced risks had to be balanced against the added risks involved in transport of the stockpile across a wide range of environments. Overall the environmental risks were considered somewhat greater due to the extensive transportation required by the national disposal center alternative.²⁰⁷

The environmental concerns associated with actual operations of a disposal facility are quite similar for all the disposal alternatives. The Tooele area was expected to suffer significant socio-economic impacts from the placement of a large national disposal facility in the sparsely populated area. This additional population influx has

²⁰⁶ DPEIS, *supra* note 10, at 2-24-2-25.

²⁰⁶ *Id.* at 2-38.

²⁰⁷ *Id.* at 2-37-2-42.

the potential of placing strains on the local infrastructure, but these effects could be mitigated.²⁰⁸ The operation of a national disposal center would also have somewhat greater effects on local air quality at TEAD, particularly by increasing concentrations of nitrogen oxides in the ambient air. Since emissions from the planned facilities are predicted to be low, however, it is estimated that even the larger national disposal center would raise nitrogen oxide emissions, the most significant emissions predicted, to only fifteen percent of the standard for ambient air.²⁰⁹

Obtaining the necessary permits for operation of a national disposal center would be an easier task for the Army than with other disposal alternatives. A single operation at TEAD would require a permit for emissions to the air under the provisions of the Clean Air Act.²¹⁰ Since the only liquid discharges are predicted to be sanitary sewage, there should be no need to obtain any permits under the National Pollution Discharge Elimination System.²¹¹ A permit will also be required for the construction of this facility under the provisions of RCRA, since it will generate hazardous waste requiring disposal. If a national disposal facility is constructed at TEAD, the State of Utah will have the responsibility to review and issue permits for air emissions and hazardous waste generation and disposal. The advantage of dealing with a single source in obtaining operating permits must be balanced, however, with the need to obtain approval for the extensive transportation of chemical agents and munitions. Any efforts to seek transportation permits may give rise to state or local opposition, resulting in delays or the passage of new laws or ordinances affecting the program. The DPEIS considered the relative complexities involved in the regulatory process as not favoring any disposal alternative.²¹² This view seems to underestimate the complexity involved in obtaining transportation approval for such a large quantity of material traveling through so many varied jurisdictions, requiring coordination with federal, state and local authorities.

Another environmental concern with the national disposal center alternative is the vast quantity of waste material that would be generated in a single location. It is estimated that a national disposal center would produce 87,760 tons of scrap metal, 673 tons of ash, and 115,592 tons of salts. The volume of the ash and salts requiring disposal at hazardous waste facilities is estimated at over thirty-six acre-

²⁰⁸*Id.* at 2-36, 2-41.

²⁰⁹*Id.* at 4-72.

²¹⁰42 U.S.C. §§ 7401-642 (1982).

²¹¹33 U.S.C. § 1342 (1982).

²¹²DPEIS, *supra* note 10, at 1-26, 2-18.

feet.²¹³ It will require a significant amount of land to dispose of such a volume of hazardous waste. In selecting the best alternative disposal program, the Army must consider whether it would be easier to dispose of several small quantities of such waste or a single larger quantity.

Cost is a consideration in selecting between alternative disposal programs, and there have been significant efforts made in developing program cost estimates. The estimated cost of a national disposal center program is \$1,960 million, which includes transportation costs of about \$287 million.²¹⁴ While this figure does not significantly differ from the estimated costs of other disposal programs, recent reviews indicate that transportation costs may significantly exceed this estimate. It may be possible to achieve some cost savings if the 1994 disposal deadline were extended. It is estimated that one or two of the five planned plants could be eliminated if the disposal deadline were extended by two years, saving approximately \$208 million.²¹⁵

E. THE REGIONAL DISPOSAL CENTERS ALTERNATIVE

In developing an alternative which utilizes regional disposal centers to destroy the chemical agent and munitions stockpile, the Army determined that a two site program was the most reasonable. ANAD was considered the logical site in the Eastern United States, and TEAD was considered the logical site for the Western United States.²¹⁶ The storage sites are generally grouped in the Eastern and Western areas of the United States. TEAD is centrally located between the two other CONUS storage sites in the West, and ANAD is in the south-central area of the Eastern United States storage sites. ANAD, however, has the most varied stockpile in the region and the second largest (next to PBA), which makes it a reasonable choice for a regional disposal site. The planned collection would have stocks from PBA, APG, LBAD, and NAAP transported to ANAD for destruction. Under this plan, 22.5% of the national chemical stockpile would be transported across eleven states for destruction at ANAD. ANAD would process 29.6% of the national stockpile, including its own stocks. TEAD would receive the stockpiles stored at UMDA and PUDA for destruction. This plan would involve the transportation of 21.5% of the national stockpile through five states with TEAD processing 63.8% of U.S. stocks. The amount of material transported is less than under

²¹³*Id.* at 4-72-4-73.

²¹⁴CSDP Supplement, *supra* note 79, at 1-14.

²¹⁵Concept Plan, *supra* note 60, at 3-4.

²¹⁶See DPEIS, *supra* note 10, at vi (map of transportation routes).

the national disposal center plan, but not significantly so because only the ANAD stockpile is not transported under this regional plan. The total transport mileage is significantly shorter, amounting to 7,057 miles instead of 13,038 miles if the entire stockpile were transported to TEAD. There would be multiple disposal facilities at each location, TEAD utilizing three facilities (two mixed munitions and one bulk agent) and ANAD utilizing two facilities (one mixed munition and one bulk). Facilities at TEAD would operate three to four years while those at ANAD would operate one and one-half to three years.²¹⁷

In developing the alternative of regional disposal centers, the Army considered collection possibilities other than transportation to the nearest regional site. One possibility is transportation by munitions type, with projectiles and mortar rounds being transported to TEAD and rockets, mines, and bulk agents being transported to ANAD. The Army rejected this possibility due to the greater transportation involved, increasing the risk of a transport accident. Another variation is transportation of the UMDA stockpile to JA for destruction. The Army rejected this process due to the increased transportation involved. A proposal to destroy the PBA stockpile on-site in a modified BZ destruction facility was not considered in the regional plan, since it would differ little from the on-site disposal alternative. If regional disposal is selected as the program to be pursued, the Army may review this proposal again. The destruction of the PBA stockpile on-site would reduce the amount of the national stockpile transported to ANAD from 22.5% to 10.5%, because PBA stores 12% of the national stockpile. The public scoping process raised two other possible regional disposal programs: moving stockpiles to remote locations where facilities would be built; and moving stocks at APG to JA by barge. Both were rejected in the DPEIS, substantially due to the increased transport without risk reduction.²¹⁸ As this article discusses later, the proposal to transport APG stocks by barge to JA has received more detailed review since publication of the DPEIS.

Some parties have criticized the consideration of only two sites for regional disposal centers, particularly the State of Kentucky in its comments on the DPEIS.²¹⁹ The Kentucky comments must be considered in their context as part of the serious opposition that exists to any plans for a disposal facility at LBAD. A review of the storage

²¹⁷DPEIS, *supra* note 10, at 2-43; CSDP, General Information, *supra* note 4, at 17-19; Concept Plan, *supra* note 60, at 3-7.

²¹⁸DPEIS, *supra* note 10, at 2-23-2-24.

²¹⁹Letter from Martha L. Collins, Governor, State of Kentucky, to Program Manager for Chemical Demilitarization (Sept. 22, 1986) (Comment 0077 to DPEIS).

sites in the Eastern United States, however, quickly eliminates several as successful candidates for a regional disposal center. APG has only one type of agent, the least hazardous (mustard), APG is in a relatively highly populated area, and APG has a small percentage of the stockpile. LBAD has a wide variety of agents and munitions, but it has the smallest percentage of the total stockpile and the greatest public opposition to any disposal program being located there. Only ANAD and PBA are reasonable alternatives in the eastern region. PUDA, the nearest western site to the eastern storage location, stores only a single agent, mustard, and would greatly increase the distance over which the Army would transport stocks if eastern storage sites shipped their chemical agents and munitions to PUDA. A further consideration is that, while local populations may accept the need for and the associated risks of a disposal facility for stocks located on the storage site, they may be opposed to the transport of chemical agents and munitions from other storage sites through their communities. Such opposition to collection has already surfaced, including from the then Attorney General-Elect of Alabama; he appeared at a public hearing on the DPEIS to comment in opposition to ANAD as a regional disposal site, and he spoke in favor of on-site disposal.²²⁰

The human health considerations involved in the evaluation of the proposal for regional disposal centers are very similar to those for a national disposal center. An added factor is that the effects of any catastrophic release would be much greater at ANAD than at TEAD because of the higher population density near the installation. Impacts at storage sites where facilities were not constructed would be less than if on-site disposal facilities were built there, but impacts at TEAD and ANAD would be greater because more construction and operating impacts would be involved than if those sites were only disposing of their own stockpiles. The reduced impacts at the six storage sites must be balanced with the impact involved in transporting forty-four percent of the stockpile through sixteen states. The risk from normal operations of regional disposal facilities is the same as if on-site facilities were constructed. Transportation accidents could have effects out to thirty-five kilometers, however, placing more people at risk. The estimated population at risk ranges from 16,000 to as many as 8.9 million, depending on the size and location of any accident, with the possibility of as many as 15,000 fatalities.²²¹

²²⁰Chemical Stockpile Disposal Program Draft Programmatic Environmental Impact Statement, 1986: Public hearing conducted at Anniston, Alabama (1986) (Statement of Mr. Don Siegelman, Attorney General-Elect, State of Alabama) [hereinafter Anniston Public Hearing on DPEIS].

²²¹DPEIS, *supra* note 10, at 2-15, 2-33-2-35.

The environmental considerations are also similar to those involved with a single national disposal center. Operating risks are somewhat less than those involved in the use of on-site disposal facilities, since fewer plants are involved in the processing of the chemical agents and munitions. The transportation involved, however, brings the accident risks to a broader range of environments.²²² The air quality concerns are also similar to those involved with a national disposal facility. Impacts would extend over a longer time, since regional facilities would operate longer than on-site facilities. The pollutant concentrations, while estimated to be twice those of on-site facilities, would be minor, however, amounting to only about ten percent of the national standard for nitrogen oxide and significantly less for all other pollutants.²²³

The concerns involved with obtaining permits under a regional disposal program are also similar to those involved in a national disposal program, although there is some increase in the number of agencies which will exercise permitting authority. Utah would exercise air quality and hazardous waste disposal permitting authority for regional facilities at TEAD. Alabama would exercise air quality permitting authority for ANAD facilities, while EPA would exercise hazardous waste disposal permitting authority.²²⁴ While coordinating permit applications with three agencies will be somewhat more difficult than the one agency involved if a national disposal program were selected, this is not a significant concern. The approval process involved in the transportation of chemical agents and munitions under this alternative is almost as great as under the national disposal center alternative. The number of states involved is reduced from twenty to sixteen, but there would still be a very large number of local jurisdictions which could affect the process. Little difference appears to exist between the alternatives in this area.

The hazardous waste generated by regional disposal facilities would be the same as by a national disposal facility, but it would be in two separate locations. Operations at ANAD are estimated to produce 12.2 acre-feet of hazardous waste requiring disposal in a permitted landfill, and TEAD would produce 23.9 acre-feet of such material.²²⁵ The lesser amounts produced at each of two sites would likely make disposal easier, but whether the landfill area needed will be available when the waste is generated can not be predicted with certainty.

²²²Id. at 2-33, 3-77.

²²³Id. at 2-32, 4-62.

²²⁴Id. at 1-26.

²²⁵Id. at 2-32.

The initial cost estimates of a regional disposal program are somewhat less than the other disposal alternatives. Regional disposal centers at ANAD and TEAD are estimated to cost \$1,864 million, including \$221 million in transportation costs.²²⁶ These transportation costs, like those involved in the national disposal center alternative, probably are understated, according to more recent evaluations. By extending the 1994 deadline for two years, it is possible to reduce construction costs under this alternative, resulting in cost savings of approximately \$83 million.²²⁷ Based upon these estimated costs, there is no significant cost distinction between the regional and national disposal options.

F. THE ON-SITE DISPOSAL ALTERNATIVE

The most attention to date in the review of various alternative programs for the disposal of the national chemical stockpile has been focused on the proposal to incinerate all the chemical agents and munitions at their current storage locations. This on-site disposal alternative was identified as the preferred alternative in the DPEIS and has been subject to significant public comment. The on-site disposal alternative would require the building of facilities at each site. Mixed munitions facilities would be constructed at TEAD, ANAD, UMDA, LBAD, and PUDA. Bulk agent facilities would be constructed at TEAD, AGP, and NAAP. The BZ facility at PBA would be modified to process the stockpile stored there. There would be no off-site transportation of agents and munitions, because the on-site disposal facilities would be adjacent to or nearby the current storage locations. The facilities would incorporate standard design features based on JACADS technology. Disposal operations would continue for between 1.25 and 3.5 years, depending on the site.²²⁸

The health effects of operations and potential accidents vary from site to site with this alternative. Sites processing only H agents (PUA and APG) are not subject to the same level of risk as those processing nerve agents, due to the greater distances and lower concentrations at which nerve agents are hazardous. Estimates of the number of people at risk from accidents range from between minimums of zero (ANAD, LBAD, NAAP, PUDA, TEAD, and UMDA) and 100 (APG) and maximums of 420 (PUA) and 99,990 (ANAD). The estimates of potential fatalities range from lows of zero (ANAD, LBAD, NAAP,

²²⁶CSDP Supplement, *supra* note 79, at 1-13.

²²⁷Concept Plan, *supra* note 60, at 3-12.

²²⁸CSDP General Information, *supra* note 4, at 19-20; DPEIS, *supra* note 10, at 2-5-2-6, 2-20.

PUDA, TEAD, and UMDA) to a high of 1,167 (LBAD).²²⁹ This broad range of figures was based upon the different types of agents that could be involved, differences between sites, and probable weather conditions. They illustrate the wide differential between accident risks at different sites. The total probability of a potentially fatal accident affecting an off-site population at any site under this alternative was calculated at 1 in 5,000.²³⁰ At some sites, such as NAAP, risk analysis indicated it was extremely unlikely for any potential accident to have effects beyond the plant grounds.²³¹ The overall health and environmental impacts from on-site disposal operations, not accidents, were evaluated as relatively minor, including some impact from the need for increased emergency response planning and stress on the public living near the facility; there would be no long-term effects.²³² The reduced health and environmental impacts from on-site disposal as compared to the collection alternatives were important in its selection as the preferred alternative.

The selection of on-site disposal as the preferred alternative in the DPEIS gave rise to criticism that this choice was made without site-specific environmental reviews at each storage installation. While each storage installation received limited consideration of its particular characteristics, the DPEIS process, as mentioned earlier, did not involve complete site-specific documentation. That documentation will follow the Final Programmatic EIS and could affect program choices. Comments of private organizations in Kentucky and by the Governor of Kentucky sharply criticized the DPEIS for its limited site-specific evaluation and lack of specific data concerning the different stockpile risks and CAMDS emissions.²³³ The recent data compilation concerning the risks of continued storage and CAMDS emissions will address some of these comments, but the decision to delay site-specific environmental documentation until completion of the Final Programmatic EIS will continue to generate criticism from opponents.

The focus on the eight CONUS storage locations as sites of disposal facilities drew significant attention to emergency response capabili-

²²⁹ DPEIS, *supra* note 10, at 2-29, 2-45.

²³⁰ CSDP Public Hearings, *supra* note 22, at 29.

²³¹ Chemical Stockpile Disposal Program Draft Programmatic Environmental Impact Statement, 1986: Public Hearing conducted at Clinton, Indiana (1986) (Statement of Captain Stefanovich, U.S. Army, Commander, NAAP) [hereinafter NAAP Public Hearing on DPEIS].

²³² DPEIS, *supra* note 10, at 2-28.

²³³ Letter from Martha L. Collins, Governor, State of Kentucky, to Program Manager for Chemical Demilitarization (Sept. 22, 1986) (Comment 0077 to DPEIS); Letter from Kentucky Resources Council to Program Manager for Chemical Demilitarization (Sept. 19, 1986) (Comment 0066 to DPEIS); Letter from Kentucky Conservation Committee to Program Manager for Chemical Demilitarization (Sept. 18, 1986) (Comment 0060 to DPEIS).

ties. Detailed studies of the need to upgrade this capability near current storage locations are presently being conducted. Early estimates indicate that improving the emergency response capability near the current storage locations could cost as much as \$37.5 million.²³⁴ The need to improve capabilities in the area and the associated costs have attracted the attention of local authorities. Concerns over emergency preparedness and the costs of improvements were expressed at the public hearing on the DPEIS held in Anniston, Alabama,²³⁵ and by local officials of communities near UMDA.²³⁶ USA-THAMA has indicated that it would take the funding requests of local communities for emergency preparedness improvements to Congress for consideration.²³⁷ There are no funds currently appropriated to aid local governments with the expenses of improving current capabilities. Both Hartford County, Maryland, and Hermiston, Oregon, have submitted requests listing anticipated requirements, totaling \$3,993,000 and \$123,500 respectively, and asking for financial assistance.²³⁸ If on-site disposal is selected for chemical stockpile destruction, all storage sites probably will submit requests for extensive financial assistance.

The preferred alternative of on-site disposal has been subject to significant comment by other federal agencies, state governments, local governments, and citizen groups during the NEPA process of public hearings and the written comment procedure. Some federal agencies have submitted comments supporting on-site disposal, including the Department of the Interior and Region III of EPA.²³⁹ Several states have also submitted written comments supporting the on-site disposal alternative, including Colorado, Indiana, Missouri,

²³⁴ U.S. Army Toxic and Hazardous Materials Agency, Programmatic Cost Estimates, Emergency Response Concept Plan for the Chemical Stockpile Disposal Program (Preliminary Draft) 2-3, 5, 9, 12, 33-38 (1987).

²³⁵ Anniston Public Hearing on DPEIS, *supra* note 220 (Statement of Mr. Sam Slone).

²³⁶ Letter from Louis A. Carlson, Judge of Morrow County, Oregon, to Dr. Vernon Houk, Center for Disease Control (Mar. 16, 1987) (requesting funding for emergency preparedness); Letter from Glenn Youngman, Chairman, Umatilla County Board of Commissioners, to Dr. Vernon Houk, Center for Disease Control (Mar. 18, 1987) (requesting funding for emergency preparedness).

²³⁷ Health Plan, *supra* note 138 (Statement of Mr. Charles Baronian).

²³⁸ Letter from Habern Freeman, County Executive, Harford County, Maryland to Dr. Vernon Houk, Center for Disease Control (Mar. 24, 1987) (discussing costs of emergency preparedness); Letter from William E. Neuffer, Mayor, Hermiston, Oregon, to Dr. Vernon Houk, Center for Disease Control (Apr. 7, 1987) (requesting funding for emergency preparedness).

²³⁹ Letter from U.S. Department of the Interior to Program Manager for Chemical Demilitarization (Aug. 28, 1986) (Comment 0040 to DPEIS); Letter from U.S. Environmental Protection Agency, Region III, to Program Manager for Chemical Demilitarization (Sept. 22, 1986) (Comment 0108 to DPEIS).

Nebraska, Ohio, Utah, and Wyoming.²⁴⁰ While several of these comments can be attributed to that state's desire to avoid any participation in this program when no storage facility is located within its boundaries, the views of the state agencies in Indiana, Colorado, and Utah indicate that, while destruction of the chemical stockpile already located within those states is acceptable, there is no willingness to accept shipments of these materials from other locations. Local governments and citizen groups submitted similar comments.²⁴¹ The public hearing process demonstrated varied levels of public concerns

²⁴⁰Letter from Colorado Department of Health to Program Manager for Chemical Demilitarization (Sept. 19, 1986) (Comment 0117 to DPEIS); Letter from State of Indiana to Program Manager for Chemical Demilitarization (Sept. 22, 1986) (Comment 0080 to DPEIS); Letter from Missouri Department of Natural Resources to Program Manager for Chemical Demilitarization (Nov. 3, 1986) (discussing on-site disposal); Letter from Governor Robert Kerrey, State of Nebraska to Program Manager for Chemical Demilitarization (Sept. 22, 1986) (Comment 0101 to DPEIS); Letter from State of Ohio Public Utilities Commission to Program Manager for Chemical Demilitarization (Oct. 1, 1986) (Comment 0127 to DPEIS); Letter from State of Utah Department of Health to Program Manager for Chemical Demilitarization (Sept. 18, 1986) (Comment 0098 to DPEIS); Letter from Governor of Wyoming to Program Manager for Chemical Demilitarization (Sept. 10, 1986) (Comment 0051 to DPEIS).

²⁴¹Letter from Mr. Sam Slone, Calhoun Emergency Management Agency, to Program Manager for Chemical Demilitarization (Oct. 21, 1986) (Comment 0129 to DPEIS); Chemical Stockpile Disposal Program Draft Programmatic Environmental Impact Statement, 1986: Public Hearing conducted at Pine Bluff, Arkansas (1986) (Statements of Jack Parmateer, Office of Emergency Services, Jefferson County, Arkansas, and Tom Ashcraft, Mayor, Whitehall, Arkansas); Chemical Stockpile Disposal Program Draft Programmatic Environmental Impact Statement, 1986: Public Hearing conducted at Pueblo, Colorado (1986) (Statement of Mr. Avery Wyant, Pueblo City and County Health Department); Letter from Arkansas Soil and Water Conservation Commission to Program Manager for Chemical Demilitarization (Sept. 18, 1986) (Comment 0062 to DPEIS); Letter from Mayor of Pine Bluff, Arkansas to Program Manager for Chemical Demilitarization (Sept. 19, 1986) (Comment 0063 to DPEIS); Chemical Stockpile Disposal Program Draft Programmatic Environmental Impact Statement, 1986: Public Hearing conducted at Hermiston, Oregon (1986) (Statements of Congressman Robert Smith and R. R. Schroth, Mayor, Hermiston, Oregon); Letter from Umatilla County Emergency Management to Program Manager for Chemical Demilitarization (Sept. 9, 1986) (Comment 0052 to DPEIS); Letter from City of Irrigon, Oregon to Program Manager for Chemical Demilitarization (Aug. 22, 1986) (Comment 0036 to DPEIS); Letter from Clinton Chamber of Commerce to Program Manager for Chemical Demilitarization (Aug. 11, 1986) (Comment 0025 to DPEIS); Letter from City of Clinton, Indiana, to Program Manager for Chemical Demilitarization (Aug. 11, 1986) (Comment 0027 to DPEIS); Letter from Clinton Industrial Development Corporation to Program Manager for Chemical Demilitarization (Aug. 11, 1986) (Comment 0028 to DPEIS); Letter from Sally H. Dieke, Potomac Chapter, Sierra Club, to Program Manager for Chemical Demilitarization (Sept. 12, 1986) (Comment 0050 to DPEIS); Letter from Greater Pine Bluff Chamber of Commerce to Program Manager for Chemical Demilitarization (Sept. 15, 1986) (Comment 0086 to DPEIS); Letter from Oregon Environmental Council to Program Manager for Chemical Demilitarization (Sept. 23, 1986) (Comment 0112 to DPEIS).

at the different sites, without any opposition to the program during public hearings at the two largest storage facilities, TEAD and PBA.²⁴²

The on-site disposal alternative has received significant criticism in some areas. The opposition has been the greatest at the storage facilities with the smallest portion of the chemical stockpile, with LBAD clearly demonstrating the highest level of public opposition. Under Secretary of the Army Ambrose attended the public hearing on the DPEIS held at Richmond, Kentucky, and he heard a large number of commenters. Opposition speakers represented state government, local government, and private citizens and cited concerns including the high population near LBAD, the lack of full-scale technology testing, the negative effects a disposal facility could have on the local economy, the emotional stress on residents and children from incinerator operations, and often arguing that LBAD had unique considerations which required the movement of its stockpile to another location for destruction.²⁴³ Under Secretary Ambrose responded that the LBAD area was "not that unique" in terms of population at risk, being similar to APG, ANAD, and PBA.²⁴⁴ The opposition at LBAD continually raised the issue that, while LBAD had the lowest percentage of the chemical stockpile (1.6%), the DPEIS cited it as having the highest potential number of fatalities in the event of an accident. Kentucky Governor Martha Collins presented these same concerns in testimony before the Subcommittee on Investigations of the House Armed Services Committee on July 25, 1986.²⁴⁵ LBAD does contain the smallest percentage of the stockpile, and the population at risk is somewhat greater than other storage locations. The stockpile at LBAD, as discussed earlier, however, contains munitions that are of particular concern as handling risks: M55 rockets filled with both VX and GB. The presence of large numbers of these munitions makes any movement of the LBAD stockpile more difficult and potentially more dangerous than other stockpiles, such as those at APG or PUDA.

Opposition to on-site disposal does not only exist in the LBAD area. Citizens near APG and NAAP opposing this alternative have sub-

²⁴²Chemical Stockpile Disposal Program Draft Programmatic Environmental Impact Statement, 1986: Public Hearing conducted at Pine Bluff, Arkansas (1986); Chemical Stockpile Disposal Program Draft Programmatic Environmental Impact Statement, 1986: Public Hearing conducted at Tooele, Utah (1986).

²⁴³Kentucky Public Hearing on DPEIS, *supra* note 195 (Statements of Ms. Kathy Peters, Office of the Lieutenant Governor, Mr. Bill Rice, and Ms. Elaine Waters).

²⁴⁴*Id.* (Statement of James R. Ambrose, Under Secretary of the Army).

²⁴⁵Subcommittee Hearings, *supra* note 57 (Statement of Martha L. Collins, Governor, State of Kentucky).

mitted petitions and written comments calling for further study.²⁴⁶ Opposition from citizens at these locations does not approach the level of the opposition at LBAD. The stockpiles at APG and NAAP, ton containers of mustard and VX, respectively, also present significantly easier disposal considerations than the mixed munition stockpile at LBAD, which can allow the Army to demonstrate a strong case for the safety of on-site disposal of the APG and NAAP stockpiles.

One of the significant concerns raised by opponents to on-site disposal is the fear that the disposal facilities constructed at local installations will become permanent and will make their communities hazardous waste centers for years to come. The use of these facilities for any purpose other than chemical disposal is expressly prohibited by statute; the statute states that the facilities will be dismantled after they complete chemical disposal operations.²⁴⁷ Some public officials, including Governor Collins of Kentucky, citizen groups, and private citizens, have expressed concern that, after the investment of millions of dollars to construct these facilities, a later Congress will repeal the current statutory restrictions and allow the facilities to continue to operate.²⁴⁸ It is impossible for Army officials to address this concern, because it involves future actions of Congress over which the Army cannot exercise control. Although Congress has currently made a commitment to the citizens who live in areas that will eventually have disposal facilities that those facilities will not be permanent, it cannot guarantee that a future Congress will not decide that the nation as a whole needs those facilities to continue disposing of hazardous waste.

An argument that opponents to on-site disposal at both LBAD and APG have used is that the risk analysis between alternatives does not consider time exposure. This position essentially asserts that there is a greater risk from the exposure of residents near storage sites to

²⁴⁶Letter from D. F. McCune to Program Manager for Chemical Demilitarization (Sept. 23, 1986) (Comment 0079 to DPEIS); Letter from R. and K. Hudson to Program Manager for Chemical Demilitarization (Sept. 21, 1986) (Comment 0110 to DPEIS); Letter from J. and L. Hudson to Program Manager for Chemical Demilitarization (Sept. 20, 1986) (Comment 0096 to DPEIS); Letter from J. Steinbrenner to Program Manager for Chemical Demilitarization (Sept. 23, 1986) (Comment 0097 to DPEIS); Letter from J.G. Johns to Program Manager for Chemical Demilitarization (Sept. 21, 1986) (Comment 0099 to DPEIS); Letter from C. Nixon to Program Manager for Chemical Demilitarization (Sept. 18, 1986) (Comment 0100 to DPEIS); Letter from L. Howell to Program Manager for Chemical Demilitarization (Sept. 22, 1986) (Comment 0103 to DPEIS).

²⁴⁷50 U.S.C.A. § 1521(c)(2) (Supp. 1987).

²⁴⁸Subcommittee Hearings, *supra* note 57 (Statement of Martha L. Collins, Governor, State of Kentucky); Letter from League of Kentucky Sportsmen, Inc. to Program Manager for Chemical Demilitarization (Sept. 19, 1986) (Comment 0075 to DPEIS); Edgewood Public Hearings on DPEIS, *supra* note 24 (Statement of Barbara Kreamer).

incinerator emissions and other aspects of disposal operations over a period of years than there is from the exposure of admittedly larger populations along transportation corridors during the relatively brief time periods when chemical agents and munitions are actually in transit through those areas.²⁴⁹ Proponents of this position have not drawn any distinctions between the level of the two distinct risks involved. The attractiveness of the proponents' calculations dissipates when smaller operational accidents are compared to the potentially large transportation accidents which could occur. Other commenters have noted the different risks involved and taken positions in favor of lower level long-term risks rather than risking a catastrophic transportation accident.²⁵⁰ The raising of the issue will almost certainly result in some review of the relative risks in the final EIS risk analysis.

In evaluating resource impacts of the disposal alternatives, the increased complexity involved in managing eight operations was considered more difficult than managing one or two disposal operations. This increased difficulty is counterbalanced by the difficulty of managing transportation during the two to three years necessary for the collection alternatives.²⁵¹ It is also clear that the regulatory complexity of on-site disposal operations will be greatly increased, because the eight different states, and in some instances EPA, will control the review and permitting process for air emissions and hazardous waste disposal. This concern also must be balanced against the regulatory complexity involved in the massive, long-term transportation effort which would be necessary for the collection alternatives. In reviewing this aspect of the disposal alternatives, none has an advantage over the others.²⁵² It is difficult to determine at this time the extent of difficulty which could be involved in processing permit applications with different states. States where significant opposition to the program exists may be reluctant to grant the permits needed for disposal operations. Maryland permitting authorities have already indicated that they will require site-specific environmental documentation prior to processing permit applications.²⁵³ The Clean

²⁴⁹Letter from Charles E. McKnight to Program Manager for Chemical Demilitarization (Sept. 23, 1986) (Comment 0114 to DPEIS); Kentucky Public Hearing on DPEIS, *supra* note 195 (Statement of Peter Hillé).

²⁵⁰Health Plan, *supra* note 138 (Statements of Dr. Robert Stasiak, Pueblo City and County Health Department, and Mr. Lewis Carlson, Chief Executive, Morrow County, Oregon).

²⁵¹DPEIS, *supra* note 10, at 2-19-2-20.

²⁵²*Id.* at 2-18.

²⁵³Edgewood Public Hearing on DPEIS, *supra* note 24 (Statement of Mr. Alvin Bowles, Chief, Hazardous Waste Permit Commission, Maryland Waste Management Administration).

Air Act, RCRA, and Army Regulations require that permits be obtained before construction of facilities.²⁵⁴

The on-site disposal alternative results in the same total amount of hazardous waste as other disposal alternatives. However, the waste material requiring disposal will be spread among the different disposal sites in different amounts, ranging from 0.76 acre-feet at LBAD to 16.28 acre-feet at TEAD.²⁵⁵ The reduced quantities at each location should present a smaller disposal problem than the larger quantities accumulated at one or two collection sites.

The cost of on-site disposal was estimated in the DPEIS at \$1,972 million, greater than either collection alternative.²⁵⁶ However, if more recent transportation cost estimates are considered, it appears that on-site disposal is likely to be the least costly of the disposal alternatives.

One of the factors in selecting on-site disposal as the preferred alternative in the DPEIS was its ability to meet the 1994 disposal deadline set by Congress. On-site disposal was seen as more flexible than any alternative involving transportation and less subject to delays, and was considered as having the best chance of meeting the 1994 disposal deadline.²⁵⁷ This concern for meeting the 1994 deadline has drawn criticism from many sources. Mr. Tom FitzGerald, a spokesman for opponents in the LBAD area, testified before the Subcommittee on Investigations of the House Armed Services Committee that "[t]he 1994 deadline has led to a backwards-looking approach by the Army which has narrowed unacceptably both the range of options for disposal and considerations of public health and safety."²⁵⁸ Other public officials from Kentucky and Maryland have also argued strongly against the 1994 deadline, asserting that JACADS operations should be fully tested, with emissions data developed and reviewed before any disposal facilities are constructed in the United States.²⁵⁹ These arguments proved attractive to Congress, and the

²⁵⁴ 42 U.S.C. § 6925 (1982); 42 U.S.C. §§ 7475, 7502 (1982); Army Reg. 200-2, Environmental Quality—Environmental Aspects of Army Actions (1 Sept. 1981) [hereinafter Army Reg. 200-2].

²⁵⁵ DPEIS, *supra* note 10, at 4-53.

²⁵⁶ *Id.* at 2-6.

²⁵⁷ *Id.* at 2-19-2-20.

²⁵⁸ Subcommittee Hearings, *supra* note 57 (Statement of Mr. Tom FitzGerald).

²⁵⁹ Edgewood Public Hearing on DPEIS, *supra* note 24 (Statement of State-Senator Catherine Riley); Letter from Martha L. Collins, Governor, State of Kentucky, to Program Manager for Chemical Demilitarization (Sept. 22, 1986) (Comment 0077 to DPEIS); Subcommittee Hearings, *supra* note 57 (Statement of Katherine B. Flood, Concerned Citizens of Madison County); Army Times, Mar. 30, 1987, at 25, col. 1; Kentucky Public Hearing on DPEIS, *supra* note 195 (Statement of Ms. Sue Hall).

DOD Authorization Act of 1987²⁶⁰ directed DOD to report on alternative approaches that optimized safety and cost-effectiveness without the constraints of the 1994 disposal deadline. DOD responded by submitting a report to Congress in March 1987.

G. OPTIONS IF THE 1994 DEADLINE IS REMOVED

The 1987 report to Congress supplemented the extensive report which had been submitted one year earlier. The supplemental report discussed five options for modifying the disposal program; all would delay the completion of the destruction of the chemical stockpile beyond 1994. No recommendation was made by Congress as to which option should be adopted if the 1994 deadline for disposal is removed. The options were presented for consideration by Congress in making their decision regarding the disposal deadline and not as new proposals or requests to extend that deadline.

The first option presented in the supplemental plan was a modified baseline program. Under this option the construction of CONUS disposal plants is delayed until CAMDS disassembly and thermal destruction equipment is fully tested and JACADS has conducted twelve to eighteen months of toxic operations. The CONUS plants could then incorporate any technical improvements developed during this period. The disposal plants under the on-site alternative would be operationally paired, with construction, testing, and operations at UMDA, PUDA, LBAD, and APG coordinated with those at JACADS, TEAD, ANAD, and NAAP, respectively. PBA would operate independently. This plan allows for the work force's experience at the first site to be utilized in the construction and operation of the follow-on site's facility. This program would reduce the management resources needed to conduct the on-site disposal program, because all eight sites would not be under construction or operating simultaneously. The modified baseline program reduces the number of plants required under the regional disposal center alternative from five to four and, under the national disposal center alternative, further reduces that number from five to three. This reduction in the number of plants required is generally due to a design modification, including two liquid incinerators within a facility, both somewhat larger than JACADS. The modified baseline plan extends disposal operations out to mid-1996 for the on-site alternative and late 1995 for the regional and national disposal alternatives. Costs are estimated as slightly higher than if disposal were completed by 1994; construction savings are somewhat

²⁶⁰Act of Nov. 14, 1986, § 154, Pub. L. No. 99-661, — Stat. — (1986).

less than the cost increases due to longer storage of the stockpile. The cost of on-site disposal is estimated under this option as \$2,234.3 million, regional disposal at \$2,068.8 million, and national disposal at \$1,988.7 million.²⁶¹ The regional and national disposal cost estimates include the previously stated transportation cost estimates, which are probably low.

The second option presented to Congress was the JACADS operational testing program. Under this option, JACADS would provide full-scale operational technology verification. JACADS would dispose of various classes of chemical munitions, working gradually at one-third, two-thirds, and full process rates with each type of munition and agent. After verification of the disposal process, the designs for CONUS plants would be finalized based on the JACADS experience. The JACADS verification is estimated to require eighteen months. CONUS plants would also be constructed and operated in pairs as described in the modified baseline program. The JACADS operational testing program also reduces the number of plants required to carry out the regional and national disposal center alternatives, which are the same as those under the modified baseline program. The completion of the disposal program is delayed for a longer period under this option, with regional disposal estimated to be completed in late 1998, national disposal in early 1999, and on-site disposal in mid-1999. Costs also increase due to the longer period of storage, with on-site disposal costs estimated at \$2,506.6 million, regional disposal costs at \$2,153.2 million, and national disposal costs at \$2,241.7 million.²⁶² As under the modified baseline program, these cost estimates involve transportation costs which may be seriously underestimated.

The third option presented to Congress is a modification of the second, involving sequenced construction of plants after full JACADS operational testing and verification. Under this sequenced program the TEAD facility is constructed and its stockpile destroyed after JACADS testing. Once the TEAD disposal mission is completed, work crews would move from site to site to construct, operate, and close facilities until the entire stockpile is destroyed. Under the on-site disposal alternative, the workforce would relocate from TEAD to ANAD, to UMDA, to PUDA, and finally to LBAD. PBA would operate independently with its modified BZ disposal facility, and the bulk sites would operate under a separate sequenced program, with NAAP operating first and the workforce then relocating to APG. Under the regional disposal center alternative, TEAD would operate first, with

²⁶¹ CSDP Supplement, *supra* note 79, at 4-4-4-11.

²⁶² *Id.* at 4-1, 4-12, 4-15-4-19.

the workforce then relocating to ANAD. All NEPA documentation and permit applications would be spread out over the duration of the program. Regional and national disposal centers include the same number of plants as the previously discussed options. This option significantly extends the duration of disposal operations. Completion dates were projected as mid-1999 for national disposal, early in 2003 for regional disposal and out as far as late 2008 for on-site disposal. Costs also rise with this delay; national disposal costs were estimated at \$2,260.9 million, regional disposal at \$2,354.1 million and on-site disposal at \$2,749.1 million.²⁶³ All estimates are subject to the same concern regarding transportation costs discussed earlier. While this option would optimize workforce experience, it may be unrealistic to assume that the experience will be as extensive as anticipated, particularly for the on-site disposal plan. It is likely that a significant portion of the workforce may decide to leave the program rather than endure the series of relocations involved in it. The lengthy duration of the program will also cause personnel losses through normal attrition as members of the workforce retire or otherwise cease working.

The fourth option presented in the supplemental plan involved a dual technology evaluation program; this would delay any CONUS disposal operations until both JACADS and cryofracture technologies are fully tested. This option also involves staggering CONUS plant operations to take advantage of workforce experience. After full technology evaluation is completed, the decision would be made to proceed with either cryofracture or munitions disassembly prior to destruction by incineration. Cryofracture is not a feasible method for bulk agent disposal operations, because the containers are so large and relatively simple to drain by using their valve systems. Therefore, any decision to proceed with cryofracture technology would only involve five sites: TEAD, ANAD, LBAD, PUDA, and UMDA. The BZ disposal facility at PBA would still be modified to JACADS technology under this option. Cryofracture would decrease operating costs, but the lack of operational testing and experience in technology would result in offsetting storage costs. The estimated costs under this option differ based upon which technology is finally selected. On-site disposal costs are estimated at between \$2,358.6 million (cryofracture technology) and \$2,641.2 million (JACADS technology), regional disposal costs at between \$2,277.3 million (cryofracture) and \$2,305.7 million (JACADS), and national disposal costs at between \$2,202.4 million (cryofracture) and \$2,321.9 million (JACADS). All cost estimates for collection alternatives may greatly underestimate transportation costs. Estimated completion times for this option are shorter than for the

²⁶³Id. at 4-1, 4-20, 4-23-4-27.

third option, extending to the end of 1999 for regional disposal and into 2000 for national and on-site disposal alternatives.²⁶⁴ Cost estimates and program duration estimates under this option must be considered in the context of the embryonic technology level that exists in cryofracture and may be significantly altered as research progresses.

The last option presented to Congress under the supplemental plan was a hybrid of the plans contained in the third and fourth options. Under this option the dual technology evaluation would take place as it would under the fourth option, but plant construction would be sequenced in the manner provided in the third option. Under this option either JACADS or cryofracture technology would be chosen after full testing and evaluation. This combination of approaches significantly extends the program, with completion estimated for late 2000 under the national disposal alternative, early 2003 under the regional disposal alternative, and late 2005 under the on-site disposal alternative. As in the fourth option, cost estimates vary depending upon which technology is finally selected. Cost estimates for on-site disposal range from \$2,463.8 million (cryofracture) to \$2,794.9 million (JACADS), those for regional disposal from \$2,397 million (cryofracture) to \$2,428 million (JACADS), and those for national disposal range from \$2,202.4 million (cryofracture) to \$2,339.9 million (JACADS).²⁶⁵ While utilizing the greatest amount of technology testing and workforce experience, this option includes the significant negative aspects associated with the long delay in completing disposal operations. The cost estimates can only be considered as very approximate since cryofracture technology is in relatively early development and the transportation cost estimates involved in collection are likely understated. The advantage gained from workforce experience may not be as great as anticipated since attrition may increase due to the required relocation and the long duration of the program.

V. CURRENT CONCERNs IN PLANNING FOR CHEMICAL DISPOSAL

The Army has preliminarily determined through the DPEIS process that collection alternatives have a higher risk than on-site disposal.²⁶⁶ The public commenting process has identified several areas in which further research should be conducted. EPA has suggested that further efforts be made to quantify the risks involved in the different alter-

²⁶⁴ *Id.* at 4-2, 4-28-4-29, 4-37-4-42, 5-4.

²⁶⁵ *Id.* at 4-43, 4-51-4-56.

²⁶⁶ DPEIS, *supra* note 10, at 1-22.

natives, to consider other transportation and collection options, and to attempt to evaluate the synergistic effects of exposure to multiple agents during the destruction process.²⁶⁷ Similar comments were raised by state agencies.²⁶⁸ Further research is being conducted, but it is very difficult to develop more accurate risk quantification because so much of the data must necessarily be based upon estimates. The lack of experience with agent releases and the current good safety record are working against the development of accurate risk analysis. Any estimates in this area necessarily are going to be of limited value. The Army has cited the need for more comprehensive risk analysis, studies of transportation methodology, emergency response procedures, and possible further alternatives in its 1987 report to Congress.²⁶⁹ It is questionable just how much accurate, useful data can be developed.

The 1994 disposal deadline set by Congress has proven to be very controversial. HHS has expressed concerns over the short period JACADS data would be available before currently scheduled operations at CONUS plants would have to begin to comply with that deadline.²⁷⁰ The Task Force of the Environmental Affairs Committee of the American Society of Mechanical Engineers has studied the disposal program and believes that the 1994 disposal deadline is unrealistic and that JACADS should be successfully demonstrated before the design, construction, and operation of any disposal facilities in CONUS.²⁷¹ Several politicians, including Congressmen representing the areas within which APG and LBAD are located, have argued for an extension to allow the Army to test operations at JACADS before building any CONUS disposal facilities.²⁷² Under Secretary of the Army Ambrose, who has been deeply involved in the planning of the disposal program, has stated that he believes it would be more prudent to complete tests at JACADS before going forward with other disposal facilities.²⁷³

It now appears that the most prudent course of action is for the disposal deadline to be removed and current research into the areas

²⁶⁷ Letter from U.S. Environmental Protection Agency to Program Manager for Chemical Demilitarization (Sept. 23, 1986) (Comment 0109 to DPEIS).

²⁶⁸ Letter from Oregon Department of Environmental Quality to Program Manager for Chemical Demilitarization (Sept. 19, 1986) (Comment 0074 to DPEIS).

²⁶⁹ CSDP Supplement, *supra* note 79, at 1-6.

²⁷⁰ Letter from United States Department of Health and Human Services to Program Manager for Chemical Demilitarization (Sept. 19, 1986) (Comment 0078 to DPEIS).

²⁷¹ Subcommittee Hearings, *supra* note 57 (Statement of Task Force of the Environmental Affairs Committee, American Society of Mechanical Engineers).

²⁷² Army Times, Mar. 30, 1987, at 25, col. 1.

²⁷³ Kentucky Public Hearing on DPEIS, *supra* note 195 (Statement of James R. Ambrose, Under Secretary of the Army).

of concern completed while JACADS is tested and operationally verified at full production. However, the desire for absolute certainty in data cannot be allowed continually to delay the start of disposal operations. Absolute certainty is not possible in this area due to the lack of technological experience. It is possible in this field to conduct continuous testing while never establishing complete certainty about the process. The Mayor of Whitehall, Arkansas, located just outside PBA, summarized this concern, stating:

[I]f we get so involved in trying to have an absolute safe program to where we forget that we need to get rid of it [there will be a more serious problem]. . . . [I]t's not going to get any better, and the safest thing to do is to go on with the good plan.²⁷⁴

In the author's opinion, planning should now concentrate on completing JACADS and operationally verifying the process. Incineration has been demonstrated as safe, with very small emissions resulting. If the JACADS process is demonstrated at full production rates, it should be used as the basis for the disposal of the entire stockpile. The second option presented to Congress in the 1987 supplemental plan is a sound program for disposing of the deteriorating stockpile with reasonable speed. The data available from JACADS will respond to concerns that the Army in the DPEIS is proposing to build multiple facilities using a technology not adequately proven. The critical decision to make in pursuing this program is whether or not to transport any of the stockpile from its current storage locations to other sites for disposal. This decision is critical to the expeditious completion of the chemical disposal program.

A. CONSIDERATIONS INVOLVED IN DETERMINING WHETHER THE ARMY SHOULD TRANSPORT CHEMICAL AGENTS AND MUNITIONS

There are many factors which must be considered in determining whether any transportation of chemical agents and munitions should be undertaken. The Army does have some experience in transporting this material, but most of that experience is of little value, because it is dated and was incurred in times before the current wide variety

²⁷⁴ Health Plan, *supra* note 138 (Statement of Tom Ashcroft, Mayor, Whitehall, Arkansas).

of detailed regulations for transporting hazardous materials existed. Except for the stockpile at NAAP, all munitions and agents were transported to their current locations.²⁷⁵ The last large-scale movement for purposes of disposal occurred in 1969, and a smaller movement involving chemical bombs occurred in 1978, transporting 888 bombs from Rocky Mountain Arsenal to TEAD.²⁷⁶ Various methods of transport including rail, truck, and air were used in the more recent movements.

Army regulations require that the safety precautions to be utilized in any movement of chemical munitions within CONUS be equal to or greater than the standards set by the United States Department of Transportation (DOT).²⁷⁷ DOT regulates the shipment of hazardous materials pursuant to the Hazardous Materials Transportation Act²⁷⁸ and has published extensive regulations concerning truck and rail transport of hazardous material.²⁷⁹ DOT has expressed serious concern over any possible movement of chemical agents and munitions as part of a disposal program.²⁸⁰ They can be expected to closely review any transportation plans involving such movement.

HHS, which is required by statute to review any proposed transportation plans concerning chemical agents and munitions,²⁸¹ has been involved in the review of initial transportation plans and advised the Army that more consideration should be given to barge transportation of the stockpile located at APG and to the possibility of stabilizing the agents and munitions for transport by placing them at extremely low temperatures.²⁸² The Army has responded to these concerns of HHS by conducting a further review of the potential for water transportation of the APG stocks and of the possibilities of chilling chemical agents for shipment.

A recent study conducted into the possibility of cooling chemical agents prior to shipment has developed information indicating that some risk reduction would be obtained if certain munitions were chilled prior to shipment. The chemical agents in the stockpile have a very

²⁷⁵ CSDP General Information, *supra* note 4, at 49.

²⁷⁶ *Id.* at 49.

²⁷⁷ Army Reg. 50-6, Nuclear and Chemical Weapons and Material—Chemical Surety (12 Nov. 1986).

²⁷⁸ 49 U.S.C. §§ 1801-12 (1982).

²⁷⁹ 49 C.F.R. §§ 171-78 (1986).

²⁸⁰ Letter from U.S. Department of Transportation, Office of Hazardous Materials Transportation, to Program Manager for Chemical Demilitarization (Aug. 1, 1986) (Comment 0011 to DPEIS).

²⁸¹ 50 U.S.C. § 1512(2) (1982).

²⁸² Letter from United States Department of Health and Human Services to Program Manager for Chemical Demilitarization (Sept. 19, 1986) (Comment 0078 to DPEIS).

wide range of freezing points. GB will not freeze unless cooled to -70.4°F , VX will freeze at -58°F and mustard will freeze at temperatures between 32°F and 58.1°F .²⁸³ Cryogenic chilling to reach the extremely low freezing points of GB and VX is not practicable, because it would embrittle the carbon steel munitions which encase the agents, making them much more hazardous to transport. These projectile casings may become brittle at -50°F .²⁸⁴ An advantage was found by cooling the munitions to approximately 0°F , which would freeze mustard agents and lower the vapor pressure of GB and VX.²⁸⁵ The advantage gained by cooling to 0°F is that, for about one hour, mustard and GB munitions that develop leaks would have significantly lower emissions; little difference was found with VX emissions.²⁸⁶ While there was some safety benefit in the event of leakage, no apparent benefit was found if an accident resulted in detonation or fire while the munitions were at a temperature of 0°F .²⁸⁷ The estimated costs of chilling GB and mustard agents for transport was only approximately \$23.5 million above non-refrigerated transport.²⁸⁸ This modest cost increase is relatively insignificant in comparison to the total program costs and, if transportation of agents is selected, provides some mitigation of transportation accidents involving leakage by delaying more dangerous emission levels for up to one hour. This allows for emergency response measures to take effect prior to a significant health hazard developing in some cases.

The munitions in the current stockpile are generally stored in a manner conducive to transport. There are potential hazards from rockets, mines, mortar projectiles, and 105 millimeter cartridges because they contain a variety of fuzes, bursters, and propellant.²⁸⁹ Any transportation would require DOT approval and RCRA manifest documentation due to the hazardous nature of the materials. The general considerations involved in any form of transport center on the safety of the planned movement. The overall probability of a major agent release has been estimated by USATHAMA as approximately two orders of magnitude (100 times) higher for any collection alternative than for on-site disposal alternatives.²⁹⁰ As part of the DPEIS, safety analyses were conducted for rail, truck, and air transport modes.

²⁸³ Office of the Program Manager for Chemical Munitions, Transportation of Chemical Munitions at Reduced Temperature 1-2 (1987).

²⁸⁴ *Id.* at 2-1.

²⁸⁵ *Id.* at 2-3.

²⁸⁶ *Id.* at 5-1.

²⁸⁷ *Id.* at 3-1.

²⁸⁸ *Id.* at 7-2.

²⁸⁹ CSDP, General Information, *supra* note 4, at 52.

²⁹⁰ CSDP Public Hearings, *supra* note 22, at 20.

These analyses resulted in a relative safety ranking of rail as the safest method, followed by truck and then by air transport. In evaluating the size of any potential agent release from an accident, air transport was considered to have the potential for the largest release, followed by rail and truck transport.²⁹¹ The transportation of agents over the broad distances involved also adds to planning complexity by the great diversity in potentially impacted environments that would be traversed by the shipments. Planning would have to attempt to establish responses for accidents of various types and sizes and involving different agents for all potentially impacted environments. The DPEIS determined that mitigation of accident impacts would probably be much more difficult during transport than if the accident occurred at a storage site.²⁹²

The off-site transportation required by any collection alternative would require a significant commitment to emergency response planning. All localities potentially affected would need to be involved in this planning, and mobile emergency response capabilities would need to be developed that could respond to an accident site in a very short time. In a memorandum that the Public Service Commission of Ohio submitted to USATHAMA, the vast planning complexities were highlighted for transportation through that state. The Commission noted that the proposed transportation route through Ohio passed through forty-eight cities, towns, and villages with a population of 219,000 people. The trains would cross 599 grade crossings and 149 bridges.²⁹³ Planning would have to consider the potential impacts at each of these locations and coordination would be necessary with each community. As part of the response capability, it is considered necessary to have monitoring devices available to provide for the detection of agents below threshold limits, which would likely require the use of mobile systems.²⁹⁴ Another emergency response planning consideration is the escort's composition and capability to respond to accidents. Initial reviews of this aspect of any transportation plan have determined that any mobile escort could not have the capability to deal with some aspects of an accident, such as mass medical treatment.²⁹⁵ The more complete analyses of transportation concerns, which have been conducted since the DPEIS, have developed detailed information, highlighting to a greater degree the risks which would be in-

²⁹¹ DPEIS, *supra* note 33, at 2-26-2-27.

²⁹² *Id.* at 2-43.

²⁹³ Memorandum from Public Service Commission of Ohio to U.S. Army Toxic and Hazardous Materials Agency (June 18, 1986).

²⁹⁴ Emergency Response Concept Plan, *supra* note 39, at I, x-xi.

²⁹⁵ *Id.* at II, 1-3.

volved, the planning complexity, and the limitations on emergency response capability.

Shipping chemical agents and munitions would involve the use of special containers. A two part container is considered necessary. Such a container should have the ability to provide a partial vacuum, have a filter system, and an alarmed monitoring device.²⁹⁶ Safety requirements for such a container are based upon Nuclear Regulatory Commission test requirements for containers used in the shipment of radioactive material and include a drop test from thirty feet, a puncture test, an incineration test requiring surviving a fire of 1475°F for thirty minutes, and a water immersion test.²⁹⁷ The cost of such a container has been estimated at approximately \$400,000 each.²⁹⁸

The Center for Environmental Health of HHS has characterized the planning considerations involved in any collection alternative as staggering.²⁹⁹ The initial draft of the Emergency Response Concept Plan for the Chemical Stockpile Disposal Program gave the following comment on the required emergency planning effort: "This effort would involve thousands of organizations, agencies and personnel. The planning organizations would require extensive resources and most local communities would undoubtedly require assistance to meet basic emergency planning requirements. The substantial cost and time commitments are only part of the problem."³⁰⁰

While recognizing that, no matter what transportation method may be chosen the planning considerations are extensive, the Army has reviewed four possible transportation methods for moving all or part of the stockpile from its current storage locations. These methods include shipment by truck, rail, air, and water. More extensive analysis has been done for rail transport, because it appears to have the greatest potential.

Transport by truck was briefly considered and eliminated as a feasible method. For safety reasons, truck convoys could only be of limited length, about one mile, and would travel only in daylight and good weather. They would be limited to proceeding only up to 400 miles per day. During overnight stops they would be halted within

²⁹⁶ U.S. Army Toxic and Hazardous Materials Agency, Draft Working Paper, Subject: Transportation of Chemical Agents and Munitions 3-5 (1 May 1987) [hereinafter Draft Transportation Paper].

²⁹⁷ 10 C.F.R. § 71.73 (1987).

²⁹⁸ DPEIS, *supra* note 10, at 2-11.

²⁹⁹ Letter from Center for Environmental Health, United States Department of Health and Human Services, to Program Manager for Chemical Demilitarization (Sept. 19, 1986) (Comment 0078 to DPEIS).

³⁰⁰ Emergency Response Concept Plan, *supra* note 39, at 1-2.

protected compounds on military installations. Such a program would require 610 truck convoys to support the regional disposal center alternative and 820 convoys to support the national disposal center.³⁰¹ The large number of shipments, the long-term impact on highway traffic flow, security considerations, and time required to complete the movement of the stockpile make truck transport an unreasonable method for support of either collection alternative.

The possibility of moving the stockpile by air was also considered. It was quickly determined that there are insufficient airlift resources available to transport the entire stockpile by air, and review was focused on the possibility of moving only the LBAD and APG stocks by air.³⁰² To accomplish such an air shipment program new airfields would need to be constructed at TEAD, APG, and LBAD. It was also considered necessary to station significant emergency response teams along the air route so that they could respond by helicopter to any emergency within thirty minutes.³⁰³ If air transport were attempted, it was also considered necessary to have government controlled facilities designated along the route to support any emergency landing by aircraft containing chemical munitions.³⁰⁴ As with truck convoys, aircraft would be operated only in daylight and good weather. These limitations and the relatively small aircraft payloads that can be carried would require an extremely large number of airlifts to move the chemical stockpile, ranging from 2800 to 3600 airlifts if movement of the entire stockpile were attempted.³⁰⁵ The cost of moving only the LBAD and APG stockpiles by air to TEAD have been recently estimated between \$307 million and \$363 milion.³⁰⁶ The large number of airlifts necessary, difficulty of emergency response support, cost, and safety risk, with an aircraft accident having the largest potential release of any transportation accident, combine to make air transport a poor choice for movement of the chemical stockpile, or even selected small portions of it.

As a result of the public commenting process and the previously mentioned comments by EPA, further analysis has been conducted concerning the possibility of transporting the stockpile at APG to JA for destruction. The entire inventory at APG would be loaded on a transport from the Navy Ready Reserve Fleet. To accomplish this, a loading facility would need to be constructed at APG.³⁰⁷ A difficulty

³⁰¹ DPEIS, *supra* note 10, at 2-27, G-4.

³⁰² Draft Transportation Paper, *supra* note 296, at 7-1.

³⁰³ *Id.* at 7-4, 7-13.

³⁰⁴ Emergency Response Concept Plan, *supra* note 39, at 4-2.

³⁰⁵ DPEIS, *supra* note 10, at 2-27, G-6-G-7.

³⁰⁶ Draft Transportation Paper, *supra* note 296, at 10-12a.

³⁰⁷ Emergency Response Concept Plan, *supra* note 39, at 3-1.

in supporting water transportation has been found in the need to dredge a channel in the Bush River. The APG-Edgewood Area has served as an ordnance depot for decades, and unexploded ordnance is known to exist on the river bottom; such ordnance is of unknown type and quantity.³⁰⁸ The presence of this hazard makes dredging operations in the Bush River extremely difficult, perhaps impossible. The vessel transporting the stockpile would be escorted by U.S. Navy and Coast Guard ships and proceed as close to shore as possible.³⁰⁹ The voyage from APG to JA would be routed around South America to avoid the restricted spaces of the Panama Canal. This circuitous route would require the stockpile to travel about 15,000 miles.³¹⁰ The cost of such a shipment has been estimated at about \$85 million.³¹¹ The difficulty in supporting such a movement, the safety risk involved in the event of an accident, particularly if there was an accident within the confines of the Chesapeake Bay, and the reactions of the governments of the large number of nations which lie along the transport route combine to make water transportation of the APG stockpile a poor method for carrying out the disposal program.

Rail transport has received the greatest consideration for moving the chemical stockpile if any collection alternative were selected. Plans provide for trains to move continuously, both day and night, and to avoid large population centers as much as possible. However, due to stockpile location and the location of adequate railroad tracks, it is almost impossible to avoid the urban centers of Salt Lake City and Baltimore in conducting any rail transportation.³¹² Due to the state of repair of much of the United States railroad system, a large-scale program of track inspection and repair would be needed to support rail shipment.³¹³ It is known that the use of routes having the highest quality of track would reduce the risk of accident, but the highest quality track tends to be located in metropolitan areas, placing higher populations at risk in the event of an accident.³¹⁴ Rail transportation in support of the collection alternatives would be a major task. Use of regional disposal centers involves moving 44% of the stockpile over 7,000 miles of track in sixteen states, and use of a national disposal center would involve transportation of 51.1% of the chemical stockpile over 13,000 miles of track in twenty states. The total number of trains required is estimated at 51 to support regional

³⁰⁸Draft Transportation Paper, *supra* note 296, at 2-8.

³⁰⁹Emergency Response Concept Plan, *supra* note 39, at 3-1.

³¹⁰DPEIS, *supra* note 10, G-7.

³¹¹Draft Transportation Paper, *supra* note 296, at 8-4.

³¹²DPEIS, *supra* note 10, at 2-29, G-5.

³¹³CSDP, General Information, *supra* note 4, at 52.

³¹⁴Draft Transportation Paper, *supra* note 296, at 2-5.

disposal centers and 71 to support a national disposal center.³¹⁵ Each rail shipment would actually consist of two trains, an 18 car escort train and a 114 car munition train. The munition train would have 70 rail cars loaded with 40 shipping containers of chemical munitions and agents.³¹⁶ All loading and unloading operations are planned to take place within chemical exclusion areas on military installations where the chemical stockpile is stored.³¹⁷ Security during movement would be provided by a military force of 297 troops, including 182 guards on the two trains. At any necessary stops, the guards would dismount, and a walking guard would be posted on each side of every rail car carrying munitions. Guards would be armed with common infantry small arms.³¹⁸ Although this is an impressive security force, the vulnerability of a munitions train to common smaller terrorist weapons is significant. For example, the U.S. Army's M72 antitank rocket launcher is about two feet long, weighs less than five pounds and has a maximum effective range against armor of approximately 200 meters.³¹⁹ The existence of small, concealable, and easily transportable weapons like this, which are able to strike a munitions car from ranges well beyond the guard perimeter, represents a serious risk when chemical munitions are transported beyond the boundaries of military installations. It would be extremely difficult to provide adequate security for munitions trains that could protect them from all such potential threats. The emergency response planning and co-ordination likely to be required by HHS and demanded by the local jurisdictions traversed will mean that route security will be non-existent. The composition, contents, schedule, and security arrangements of any munitions train will be known by so many individuals through the planning process, and likely to be the subject of significant media interest, that any individual or group wanting to interfere with the shipment would have no difficulty obtaining sufficient information to make their planning a relatively easy task.

As noted earlier, transportation costs for shipping the entire chemical stockpile to regional disposal centers or a single national disposal center have been estimated at amounts below \$300 million in the DPEIS and other earlier program reviews. A more recent, detailed study has indicated that rail transportation costs could exceed one billion dollars and approach two billion dollars.³²⁰ Although it is possible for further analysis and study to determine that these figures

³¹⁵DPEIS, *supra* note 10, at 2-11, 2-32, 2-35.

³¹⁶Draft Transportation Paper, *supra* note 296, at 6-5a.

³¹⁷DPEIS, *supra* note 10, at G-5.

³¹⁸Draft Transportation Paper, *supra* note 296, at 6-10a, 6-11.

³¹⁹U.S. Army Infantry School, *Characteristics of Infantry Weapons* 49 (1966).

³²⁰Draft Transportation Paper, *supra* note 296, at 10-8, 10-8a.

can be reduced, it does appear that the early cost estimates are much too low and that collection may be much more costly than on-site disposal.

The possible transportation of chemical agents and munitions to support a collection disposal program has been a subject of significant concern during the public commenting process. Understandably, support for transporting these materials has been centered around some, but not all, storage locations. The most significant support for transportation has come from the LBAD area, followed by APG and NAAP. Comments in favor of transporting chemical munitions have cited the probable transportation of the European stockpile as evidence that such transportation is feasible and can be conducted safely.³²¹ State and local officials concerned with plans for LBAD have been particularly vocal. Resolutions have been passed by local governments requesting the Army to give the highest priority to transportation of the LBAD stockpile out of the area, and transportation has been advocated by the Lieutenant Governor of Kentucky (recently defeated in his attempt to achieve the Democratic nomination for Governor) on the grounds that local residents have "paid their dues" in this matter.³²² Private citizens have testified at public hearings and submitted written comments opposing on-site disposal and requesting that the chemical agents and material be transported to other locations for disposal, sometimes pointing out that nuclear weapons are transported without accident.³²³

The public support that has surfaced for transporting chemical agents and munitions appears to be significantly less than that opposed to such transportation. Within DOD, the Explosives Safety Board, which has final safety approval authority for the program,³²⁴ has submitted written comments in favor of on-site disposal due to the lack of confidence it has in the ability of reaction forces to control hazards during transportation off military installations.³²⁵ The Congressional Rep-

³²¹ Letter from S.A. Bolin to Program Manager for Chemical Demilitarization (Sept. 20, 1986) (Comment 0073 to DPEIS); Edgewood Public Hearing on DPEIS, *supra* note 24 (Statement of State Senator Catherine Riley).

³²² Letter from Steve Beshear, Lieutenant Governor, State of Kentucky, to Program Manager for Chemical Demilitarization (Sept. 22, 1986) (Comment 0067 to DPEIS); Subcommittee Hearings, *supra* note 57 (Statement of Mr. Bob Babbage, Lexington-Fayette Urban County Councilmember-at-Large).

³²³ Kentucky Public Hearing on DPEIS, *supra* note 245 (Statement of Mr. Tom FitzGerald); NAAP Public Hearing on DPEIS, *supra* note 231 (Statement of Mr. Mark Hudson); Letter from V. Christopher to Program Manager for Chemical Demilitarization (Aug. 12, 1986) (Comment 0030 to DPEIS); Letter from R.M. Hudson to Program Manager for Chemical Demilitarization (Aug. 11, 1986) (Comment 0031 to DPEIS).

³²⁴ Dep't. of Defense Directive 6055.9, The DOD Explosives Safety Board (Nov. 25, 1983).

³²⁵ Letter from Department of Defense Explosives Safety Board to Program Manager for Chemical Demilitarization (Sept. 10, 1986) (Comment 0054 to DPEIS).

representative from the APG area acknowledged that transportation by rail of the APG stockpile is opposed by other Maryland Representatives and State officials.³²⁶ Several states have submitted comments opposing transportation of this material through their jurisdictions. Some comments are from states that have no agents stored within their boundaries, such as California, Illinois, West Virginia, Nevada and Ohio.³²⁷ Other comments from states having storage sites, such as Oregon and Alabama,³²⁸ must be considered as indicating their view that transportation risks generally exceed the risks involved with on-site disposal. There have also been several written comments submitted by private citizens who are opposed to any transportation of these chemical agents and munitions.³²⁹ The potential exists for public debate over transportation to divide strictly along geographic lines, with the only support for transportation coming from some, but not all, storage locations. As a practical matter, since the public and their political representatives who would be affected by transportation plans vastly outnumber those who would be affected by on-site disposal plans, if the final selection of a disposal program becomes a political decision with Congress choosing among the alternatives, it is likely that no off-site transportation will be involved. Congress will likely choose to avoid making such a determination, continuing to follow its current course of simply requiring maximum consideration for public health and allowing the battle over whether the selected

³²⁶Edgewood Public Hearing on DPEIS, *supra* note 24 (Statement of Congresswoman Helen Bentley).

³²⁷Letter from California Department of Health Services to Program Manager for Chemical Demilitarization (Sept. 22, 1986) (Comment 0116 to DPEIS); Subcommittee Hearings, *supra* note 57 (Statement of Charles D. Jones); Letter from Governor Arch A. Moore, Jr., West Virginia, to Program Manager for Chemical Demilitarization (Sept. 22, 1986) (Comment 0076 to DPEIS); Letter from Department of Conservation and Natural Resources, State of Nevada, to Program Manager for Chemical Demilitarization (Sept. 15, 1986) (Comment 0057 to DPEIS); Letter from Public Service Commission, State of Ohio, to Program Manager for Chemical Demilitarization (June 18, 1986) (Comment 0017 to DPEIS).

³²⁸Letter from Department of Environmental Quality, State of Oregon, to Program Manager for Chemical Demilitarization (Sept. 19, 1986) (Comment 0074 to DPEIS); Letter from Governor George Wallace, State of Alabama, to Program Manager for Chemical Demilitarization (Sept. 3, 1986) (Comment 0041 to DPEIS); Letter from Highway Division, Department of Transportation, State of Oregon, to Program Manager for Chemical Demilitarization (Aug. 1, 1986) (Comment 0006 to DPEIS).

³²⁹Letter from K.J. Caldwell to Program Manager for Chemical Demilitarization (July 29, 1986) (Comment 0003 to DPEIS); Letter from G. P. Peterson to Program Manager for Chemical Demilitarization (July 23, 1986) (Comment 0004 to DPEIS); Letter from E. Stewart to Program Manager for Chemical Demilitarization (July 27, 1986) (Comment 0009 to DPEIS); Letter from J. Bollinger to Program Manager for Chemical Demilitarization (Aug. 2, 1986) (Comment 0010 to DPEIS); Letter from A. Buechal to Program Manager for Chemical Demilitarization (Aug. 9, 1986) (Comment 0020 to DPEIS); Letter from H. French to Program Manager for Chemical Demilitarization (July 24, 1986) (Comment 0021 to DPEIS); Letter from W.R. Hinton to Program Manager for Chemical Demilitarization (June 23, 1986) (Comment 0022 to DPEIS).

alternative provides for this requirement to be fought in the court system through challenges to the environmental documentation.

An extremely important factor in the decision making process concerning whether chemical agents and munitions will be transported outside military installations as part of any disposal program will be the position that HHS takes on this issue. As noted earlier, HHS has specific responsibilities in this area and has been involved in the development of disposal plans. HHS will have significant influence over the final decision concerning transportation. Doctor Vernon Houk of the Center for Disease Control of HHS, who has been involved in much of the environmental documentation process, indicated at the public hearing on the DPEIS conducted near APG that his agency would probably recommend that a very wide corridor along the rail track be evacuated, up to perhaps twenty to thirty kilometers on each side, if chemical agents and munitions are transported by rail. Doctor Houk indicated that contingency planning along the entire transportation route cannot be adequately accomplished.³³⁰ If HHS formally recommends such an evacuation it would make the selection of any transportation alternative highly unlikely.

In reviewing all the available information that has been developed concerning the possibility of transporting the chemical stockpile outside of military installations as part of the disposal plan, the collection alternatives appear less and less feasible. The need to bring another federal agency, DOT, into the planning process; the need to coordinate, and not be blocked, in carrying out transportation plans with between sixteen and twenty states and countless other jurisdictions along the routes; the lack of any secrecy concerning the movements that would result; the near impossibility of developing an adequate emergency response capability along the entire route; and the probable staggering cost of transportation combine to make on-site disposal much preferable to any collection alternative. With public safety as the primary concern, the risks involved with transporting these munitions are unacceptable. The comments comparing this movement to that of nuclear weapons are misplaced. Nuclear weapons are not transported fuzed, with bursters and propellant charges, as would thousands of munitions, particularly M55 rockets. While European stocks may be transported, that decision lies primarily with the West German government within whose territory they are located. The decision concerning the rest of the stockpile must be based upon which program alternative provides the greatest safety for the population

³³⁰Edgewood Public Hearing in DPEIS, *supra* note 24 (Statement of Dr. Vernon Houk, Center for Disease Control).

as a whole, and that alternative is on-site disposal. As succinctly put by a Hartford County, Maryland, emergency planning official: "Don't transport it because you run into a hell of a risk of having an accident."³³¹ Not only the risk of an accident, but its potential scope, potentially affected population, and the limited ability of emergency response forces to control it militate strongly against any collection alternative.

B. CONSIDERATIONS UNDER THE CLEAN AIR ACT WHEN CONSTRUCTING DISPOSAL FACILITIES

There are two environmental statutes which will be of significant concern when disposal facilities are constructed: the Clean Air Act (CAA) and the Resource Conservation and Recovery Act (RCRA). Permits will be needed from differing authorities before construction and operations will be able to begin at any disposal plants. Of the two statutes, the Clean Air Act presents the lesser potential for delay and difficulty in the approval process.

The Clean Air Act's primary purpose is "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population."³³² Regulation of specific air pollutants is accomplished by the regulation of two general types of pollutants, criteria pollutants and hazardous pollutants. Criteria pollutants were established by EPA based upon their finding that the air pollutant emissions cause or contribute to air pollution which may endanger public health or welfare and that the pollutants in the ambient air come from numerous or diverse sources.³³³ EPA has promulgated regulations establishing standards for six criteria pollutants: sulfur oxides, particulates, carbon monoxide, ozone, nitrogen dioxide, and lead.³³⁴ Hazardous pollutants are pollutants concerning which no ambient air standard exists but which may cause an increase in mortality or an increase in serious illness.³³⁵ These hazardous pollutants are commonly referred to as toxic pollutants, because they represent a human health hazard in small amounts.

Air emissions are regulated under the CAA through two separate programs, one or both of which will apply to sources of emissions.

³³¹ Health Plan, *supra* note 138 (Statement of Dr. Charlie Brown).

³³² 42 U.S.C. § 7401(b)(1) (1982).

³³³ 42 U.S.C. § 7408(a)(1) (1982).

³³⁴ 40 C.F.R. § 50 (1986).

³³⁵ 42 U.S.C. § 7412(a)(1) (1982).

Each criteria pollutant is measured in the ambient air of a geographic region, called an Air Quality Control Region, and the region is then determined to be either in attainment, if the amount of the pollutant in the ambient air meets or is less than standards set by EPA, or in nonattainment, if the level of that pollutant exceeds national standards. When a region, or subdivision of a region, is in attainment for a criteria pollutant, the Prevention of Significant Deterioration (PSD) program applies to sources of emissions within that region.³³⁶ When such region is in nonattainment for a criteria pollutant, it falls under the program for nonattainment areas.³³⁷ Since each criteria pollutant is separately evaluated, it is possible for a region to be under the PSD program for some criteria pollutants and the nonattainment program for others.

Disposal operations are expected to result in the emission of three different criteria pollutants: sulfur dioxide, nitrogen dioxide, and particulates.³³⁸ The geographic regions of each current storage site which would have a disposal facility under the on-site disposal program are all regulated under the PSD program for the pollutants concerned.³³⁹ Permits under the PSD program must be obtained from state authorities in Alabama, Arkansas, Indiana, Kentucky, Maryland, Oregon, and Utah. In Colorado, EPA administers the PSD program and acts as the permitting authority.³⁴⁰ Initial studies indicate that air emissions will be so low, amounting to less than ten percent of ambient air standards, that no difficulties appear to be present in meeting the requirements for CAA permits.³⁴¹ A permitting authority may insist, however, upon greater documentation of emissions than currently exists. Current data is limited, because of the small scale of CAMDS operations and the limited amounts of chemical agents which have been incinerated. Considering the opposition which exists in some locations to on-site disposal operations, a permitting authority may insist on the presentation of full scale operational data prior to granting a permit. Army regulations require that all major permits be obtained before construction of any facility begins.³⁴² The need to obtain permits prior to the start of construction and the potential for a permitting authority to insist upon full scale operational data combine to make the acceptance of the relatively brief delay necessary to obtain full scale JACADS emissions data, through the second option

³³⁶ 42 U.S.C. §§ 7470-79 (1982).

³³⁷ 42 U.S.C. §§ 7501-08 (1982).

³³⁸ DPEIS, *supra* note 10, at 4-3

³³⁹ *Id.* at 3-32-3-72.

³⁴⁰ *Id.* at 1-26.

³⁴¹ *Id.* at 4-3, 4-21.

³⁴² Army Reg. 200-2.

of the 1987 supplemental plan presented to Congress, a prudent policy.

The only currently regulated hazardous pollutant which disposal facilities are expected to emit is hydrogen fluoride.³⁴³ The hazardous air pollutant emissions program is administered by each state concerned.³⁴⁴ The predicted hydrogen fluoride emissions are so low that they will probably not present any difficulty in obtaining the required permits under this program.³⁴⁵ However, the same considerations apply here as under the PSD program. It is possible for state permitting authorities to insist upon data which can only be developed from full scale operation of JACADS.

The CAA specifically requires federal facilities to comply with all federal, state, interstate, and local requirements concerning air pollution control, both procedural and substantive, as though the federal facility were a private operation.³⁴⁶ The disposal facilities will need to maintain records, conduct monitoring, and submit to inspections as required by state and local authorities. The requirements of non-federal authorities could place a significant burden on the operation of the disposal program at a particular location. It is possible for a nonfederal authority to attempt to halt the construction or operation of a disposal facility it opposes by using its regulatory authority in such a manner that construction or operations cannot be conducted. To prevent this from occurring, the Army must be prepared to seek an exemption from the President from regulation by nonfederal authorities as provided for by the CAA.³⁴⁷ Seeking such an exemption, while an option, can only be pursued if absolutely necessary to proceed with the disposal program. Every effort will have to be made to resolve disputes between the federal facility and nonfederal authorities prior to seeking such an exemption. Any effort to seek such an exemption will probably be accompanied by substantial negative publicity and charges that the Army does not care about the concerns of local citizens. However, if the only alternative to obtaining an exemption from nonfederal regulation is to allow disposal operations to be halted while the stockpile continues to deteriorate, it would be irresponsible for the Army not to make every effort to remove any obstacles to the completion of the national disposal program.

Overall, the Clean Air Act does not appear to present significant difficulties to the implementation of a chemical disposal plan. Emis-

³⁴³DPEIS, *supra* note 10, at 4-3.

³⁴⁴*Id.* at 1-26.

³⁴⁵*Id.* at 4-3-4-4.

³⁴⁶42 U.S.C. § 7418 (1982).

³⁴⁷42 U.S.C. § 7418(b) (1982).

sions from incineration operations should not be detrimental to any local environments near disposal facilities. If permitting authorities insist upon the provision of more detailed information, their requests can be met by full JACADS operational verification at a cost of only a minor delay in completion of disposal operations. Current data concerning the state of the chemical stockpile indicates that such a delay would be acceptable and not present a risk to the public. Congressional action removing the 1994 deadline for the completion of stockpile disposal operations would be necessary. A greater risk is presented by the broad regulatory authority granted to a wide range of nonfederal agencies that would allow them to exercise significant control over program operations. If an attempt is made to halt the program through nonfederal regulation, the Army must be prepared to take the matter to the President and make a persuasive argument for the removal of nonfederal authorities from the regulatory process.

C. CONSIDERATIONS UNDER THE RESOURCE CONSERVATION AND RECOVERY ACT WHEN CONSTRUCTING DISPOSAL FACILITIES

Along with the Clean Air Act, the Resource Conservation and Recovery Act (RCRA) will have a significant impact on the construction and operation of any disposal facilities built within the United States. The goals of RCRA are to reduce or eliminate the generation of hazardous waste and to provide for the safe treatment, storage, and disposal of hazardous waste that is generated.³⁴⁸ RCRA provides for the control of hazardous waste through a permitting process requiring individuals who generate, transport, or store hazardous waste to obtain government approval. Permits are administered by either the state or EPA, depending upon whether EPA has delegated this authority to the state. RCRA permitting authority has been or is in the process of being delegated to all the states that have chemical storage installations except Alabama.³⁴⁹ The RCRA permitting process is extremely detailed and requires lengthy administrative processing.

The Army has experience with the RCRA permitting process through the EPA's approval of JACADS. The JACADS RCRA permit was issued on August 30, 1985, after having been submitted on April 30, 1984.³⁵⁰ When the preparation time necessary to assemble the permit application is added to the processing time, a period of approximately

³⁴⁸ 42 U.S.C. § 6902(b) (1982).

³⁴⁹ DPEIS, *supra* note 10, at 1-26.

³⁵⁰ JACADS RCRA permit, *supra* note 144.

two years was involved in the RCRA process for JACADS. A sixteen month processing period is anticipated for future RCRA permits.

The JACADS RCRA permit specifically regulates certain emissions which are not regulated under the CAA. The chemical agent incineration process results in the emission of hydrogen chloride (HCl) in very small amounts. The JACADS RCRA permit limits HCl emissions to the larger of 1.8 kilograms per hour or one percent of the stack gas before the gas enters the pollution abatement system.³⁵¹ The predicted emissions of HCl from disposal facilities are so low, less than one gram per second, and the destruction efficiency of the high temperature furnaces is considered so high, that no difficulties are anticipated in meeting this standard. The incinerators at the disposal facilities will be required to undergo the testing and emissions sampling required by RCRA regulations for operators of hazardous waste facilities.³⁵² The incinerators will be extensively tested under this program, including the conducting of trial burns with chemical agents, prior to actual operations being permitted.

The major impact of RCRA will be in the areas of solid waste generation and disposal. RCRA requires that generators of hazardous waste, the chemical agent disposal facilities, comply with regulations concerning the recording of hazardous waste generated, the labeling of waste products, the containerizing of the waste, and other control measures.³⁵³ The hazardous waste generated from disposal facilities will be primarily in the form of salts that remain after the evaporation of brine from the pollution abatement system. The salts resulting from the JACADS operation will contain concentrations of lead, cadmium, and chromium at sufficient levels to classify them as toxic waste.³⁵⁴ The ash remaining from incinerator operations may also need to be classified as hazardous waste. The JACADS operation is required to analyze the incinerator ash to determine if it contains levels of heavy metals or products of incomplete combustion which will require the ash to be treated as RCRA hazardous waste.³⁵⁵

RCRA considerations also enter into the ultimate disposal of this hazardous waste generated by the chemical agent disposal facility. RCRA regulates transporters of hazardous waste³⁵⁶ and operators of hazardous waste storage facilities.³⁵⁷ As this hazardous waste is gen-

³⁵¹Id. at V-1.

³⁵²40 C.F.R. § 264 (1986).

³⁵³42 U.S.C. § 6922 (1982).

³⁵⁴JACADS RCRA Permit, *supra* note 144, at C-19.

³⁵⁵Id. at C-27.

³⁵⁶42 U.S.C. § 6923 (1982).

³⁵⁷42 U.S.C. § 6924 (1982).

erated, turned over to licensed transporters, and shipped to permitted storage facilities, a detailed manifest document must be maintained and filed to verify the ultimate disposal of the material.³⁵⁸ The Army may dispose of this waste only in facilities permitted by RCRA. Initial research has determined that hazardous waste disposal facilities exist within reasonable distances from all chemical storage locations.³⁵⁹ However, it cannot be determined at this time whether these facilities will be willing to accept the hazardous waste generated by these disposal plants, will be acceptable to the United States, will have sufficient landfill space to receive all the hazardous waste generated by the disposal facilities, or will even be in operation at the time the disposal facilities are actually generating the hazardous waste. A wide range of problems exists in the toxic waste disposal industry, including obtaining permits in the face of local opposition, fear of liability for injuries which may be caused by hazardous waste which could enter drinking water or otherwise harm members of the public, and the difficulty in obtaining adequate private insurance at affordable rates to operate such a facility. It is possible that the Army will have to develop and operate hazardous waste disposal sites to receive this material for storage.

The JACADS operation has not resolved all the difficulties involved with proper hazardous waste disposal under RCRA. While JACADS has been granted its RCRA permit for the generation of hazardous waste, the ultimate disposal of that waste remains to be resolved. Final disposal of the waste salts that will be generated by the JACADS operation is presently undergoing review. Temporary storage of the drummed waste material will be in empty, decontaminated munitions storage buildings on the island. Stored hazardous waste will be subject to periodic inspection to determine whether any environmental or safety problems develop.³⁶⁰ The JACADS operation, which involves a much smaller stockpile than several CONUS storage sites, will generate a large volume of hazardous waste material. The RCRA permit issued by EPA for the JACADS operation allows the temporary storage of 21,408 fifty-five gallon drums of waste salts on the island.³⁶¹ The ultimate disposition of this waste is to be decided after a supplemental EIS is completed. The two primary methods of disposal under consideration are deep ocean placement and shipment to CONUS for placement in a permitted landfill.³⁶² It is likely that

³⁵⁸ 40 C.F.R. § 262 (1986).

³⁵⁹ DPEIS, *supra* note 10, at 4-53-4-54.

³⁶⁰ JACADS RCRA Permit, *supra* note 144, at D-29.

³⁶¹ *Id.* at III-1.

³⁶² *Id.* at H-15.

public opposition to both potential disposal alternatives will be generated. Few communities are likely to welcome the shipment of even 21,000 drums of hazardous waste into their area, and ocean-oriented environmental groups can be expected to mount a campaign against ocean dumping.

The Army's initial efforts to prepare RCRA permit applications has in itself been controversial. The RCRA permit process is so lengthy that, with considerations of the present 1994 disposal deadline in mind, USATHAMA personnel began assembling RCRA permit applications for possible disposal facilities. Some opponents of on-site disposal immediately challenged these actions as violating the Council of Environmental Quality Regulations, claiming the Army was committing resources to an alternative prior to the rendering of the final decision as to which alternative would be pursued.³⁶³ Challenges to the RCRA permit application efforts were raised by the Attorney General of Kentucky in writing to the Program Manager,³⁶⁴ and during the public hearing concerning the DPEIS held at Richmond, Kentucky.³⁶⁵ The issue raised by these opponents is not substantial. There is little discretion in the decision to prepare and file permit applications before any construction efforts begin on disposal facilities. Both RCRA³⁶⁶ and Army regulations³⁶⁷ require that permits be obtained prior to construction of facilities. While the opponents' position might have merit if the Army were only submitting permit applications for one chemical disposal alternative, Army officials have stated that RCRA permit applications are being prepared for all disposal alternatives, national, regional and on-site, and not only for possible on-site disposal facilities.³⁶⁸ This procedure avoids the commitment of resources to a single alternative prior to the final decision on the program and is within the permissible limits of the Council on Environmental Quality's regulatory guidelines.

RCRA contains a provision similar to that included in the CAA, requiring federal facilities to comply with federal, state, interstate,

³⁶³ 40 C.F.R. § 1502.2(f) (1986).

³⁶⁴ Letter from Attorney General, State of Kentucky, to Program Manager for Chemical Demilitarization (Oct. 8, 1986) (discussing filing of RCRA permit applications).

³⁶⁵ Kentucky Public Hearing on DPEIS, *supra* note 195 (Statement of Mr. Tom FitzGerald).

³⁶⁶ 42 U.S.C. 6925(a) (1982); Army Reg. 200-2. The validity of this RCRA provision is questionable after the recent ruling of the U.S. Court of Appeals for the District of Columbia Circuit invalidating a similar provision of the Clean Water Act, *N.R.D.C. v. EPA*, Washington Post, July 1, 1987, at A-17, col. 1 (D.C. Cir. June 30, 1987). However, it is unlikely that Army policy concerning the obtaining of permits prior to commencing construction will change.

³⁶⁷ Army Reg. 200-2.

³⁶⁸ Kentucky Public Hearing on DPEIS, *supra* note 195 (Statement of Mr. Charles Baronian, USATHAMA).

and local requirements concerning hazardous waste.³⁶⁹ Under this provision, all disposal facilities must comply with all substantive and procedural requirements of nonfederal jurisdictions which regulate hazardous waste generation and disposal. This statutory provision effectively waives the sovereign immunity that the federal government normally maintains to avoid interference in its operations by nonfederal jurisdictions. As noted earlier, all states except Alabama act as permitting authorities under RCRA in the areas where on-site disposal facilities may be constructed. Some state agencies, particularly those in Colorado, Maryland, and Kentucky, have already indicated that reviewing delays must be involved in the RCRA permitting process.³⁷⁰ Whether any serious difficulties may develop cannot yet be determined.

State or local authorities could use their regulatory authority to hamper any planned disposal program either by placing extremely stringent restrictions on generators of hazardous waste, even limiting those restrictions to certain types of hazardous waste generated only by these disposal plants, or by placing restrictions on the disposal of the hazardous waste generated by the chemical agent incinerators. For example, they could prohibit disposal of the waste within their jurisdictions. Under its permitting authority, a state may simply delay the review process for an inordinate amount of time in an attempt to obtain a program change by the Army. By accepting a brief delay in the disposal program, the Army can develop specific hazardous waste information through full-scale operational testing of JACADS and by conducting analyses of waste products generated there. However, having all the available information a state may reasonably require in no way guarantees that the state will issue a RCRA permit. The RCRA provision requiring compliance with procedural and substantive standards mandated by nonfederal authorities is more of a threat to the expeditious completion of the program than similar requirements under the CAA, because much more activity subject to regulation occurs within the purview of the RCRA. Imaginative nonfederal authorities have a broad range of operations open to them for actions that could increase costs, cause significant administrative difficulties, or delay operations. Serious opponents in one or more localities could use their regulatory authority in an attempt to force a program change. The only alternative for the Army, if such a situation develops, is to seek a Presidential exemption from nonfederal requirements. RCRA authorizes the President to exempt federal facilities from nonfederal requirements if he determines that such ex-

³⁶⁹42 U.S.C. § 6961 (1982).

³⁷⁰CSDP Supplement, *supra* note 79, at 1-7.

emption is in the paramount interest of the United States.³⁷¹ The RCRA regulatory scope is so complex that, if nonfederal authorities attempt to halt an approved disposal facility, any exemption granted should completely remove a facility from nonfederal regulation. If only a single requirement of nonfederal authorities is involved, it is likely that a situation of cyclic regulation and exemption could develop as nonfederal authorities continue efforts to halt disposal operations in their jurisdictions. As under the CAA, any exemption sought from the President can only be a last resort, when it is clear that nonfederal authorities are attempting to stop, rather than regulate, the programs. Any attempt to obtain an exemption can be expected to result in significant negative publicity within the area concerned and is likely to lead to some attempt at Congressional action. The experience of the recent past concerning the chemical disposal program demonstrates that Congress can be influenced to place specific requirements upon it. However, once the final disposal alternative is selected and fully presented to the appropriate Congressional authorities, along with complete documentation of the reasoning behind the selection, it is less likely that Congress will inject new requirements into the program.

The RCRA concerns in any disposal alternative selected will be substantial. The sheer volume of waste material generated that is expected to require RCRA disposal consideration makes RCRA the most important statutory consideration in the chemical disposal program. Continuous monitoring of potential landfill space will need to be conducted to insure that this material, as it is created, has a proper facility available to receive it.

VI. CONCLUSIONS

After reviewing the most recent information concerning the disposal of the chemical munitions stockpile, several conclusions can be reached about the proposed disposal program. Sufficient information has been developed since the publication of the DPEIS, and there is now a better understanding of program risks and options.

While it may be technically possible to attain the Congressionally mandated disposal deadline of September 30, 1994, for the current stockpile of chemical agents and munitions, it is not a realistic deadline. It also is unnecessary to require such a deadline. Program options have now been extensively studied, emissions data have been developed, public concerns have been heard, and health effects data are being developed to the greatest possible degree. The most recent

³⁷¹42 U.S.C. § 6961 (1982).

Congressional proposals to direct DOD to give maximum protection to the public health and the environment reflect what should be the first priority, public safety. The 1994 deadline has an unsettling effect on public safety considerations. As long as planning must comply with this deadline, environmental documentation will be subject to challenge on the basis that alternatives were limited by this deadline, and that public safety received inadequate consideration. The M55 rocket study, completed in 1985, did not reveal safety considerations which require stockpile's disposal by 1994. The detailed analysis of these, the most dangerous munitions in the stockpile, indicated that these rockets should have sufficient levels of propellant stabilizer to allow for storage without serious risk of a major accident for 25 years. At the same time, the demonstrated deterioration of these munitions require that the program get underway without major delays. A balance can be reached here between the need to give the highest priority to public safety and the need to dispose of munitions which will continue to deteriorate. An extension of approximately four years to the current 1994 disposal deadline would allow full scale JACADS operational verification. Current CAMDS data indicates that JACADS will operate with extreme safety and not present a health risk. However, CAMDS data is not going to be considered equivalent to full-scale JACADS operational data by skeptics, populations who reside near disposal facilities, or, probably, federal judges who rule on challenges to the final disposal alternative selected. The 1994 deadline, as seen in light of all current information, only creates a potentially crucial issue for program opponents to raise in court challenges brought under NEPA. Congress has the ability to assure that the program moves along with all possible dispatch without requiring disposal of the current stockpile by 1994, and should remove this deadline.

The technical data that have been developed give every indication that destruction by incineration is safe and effective for the nerve and mustard agents in the current stockpile. It will be more effective to concentrate remaining research efforts on increasing the efficiency of the incineration process and the pollution abatement systems than to diffuse efforts by attempting to develop new technologies. The M55 rocket study has shown that there is only a finite period within which disposal operations must be completed before there will be a serious risk of a substantial accident. The remaining period of time during which the stockpile can be considered relatively safe does not allow for the complete research, development, testing, and verification that would be necessary to prove a new technology safe and feasible. All CAMDS tests to date have given good reason for believing that these agents can be incinerated without harmful effects to the public. If all research efforts are concentrated on incineration technology, it is

likely that, through further CAMDS testing and JACADS verification, improvements in destruction efficiency can be made, increasing the safety of the process.

Significant data have been developed that can be included in updated environmental documentation. Health data will necessarily be limited because of the lack of experience with human exposure to nerve agents. Tests concerning possible synergistic effects of exposure to emissions of multiple agents are currently being conducted and should be included in final environmental documentation. The recent compilation of CAMDS emission data, studies concerning transportation, and emergency response capability all should be included in final NEPA documents. Although the Council on Environmental Quality may require that a revised DPEIS be published, it is not likely that new public concerns will be developed. The major issues raised in the public commenting period have received specific consideration, and it is unlikely that further research will develop information significantly different than that now available. Ongoing research should be completed, reports finalized, and the information assembled into a final programmatic EIS, which will allow for final public comments and a record of the Secretary of the Army's decision in selecting a disposal alternative.

The research conducted over the past several years concerning possible disposal programs has developed sufficient data to make a well-informed choice among chemical disposal program alternatives. The best choice is to pursue on-site disposal of the current chemical stockpile. On-site disposal is the safest and most feasible of the possible alternative programs. Public safety must be the paramount interest in any disposal program, and on-site disposal provides the highest level of public safety. The detailed studies of specific concerns, such as rocket deterioration, transportation, and emergency response capability all demonstrate that on-site disposal is preferable to any alternative involving transportation. The M55 rocket study revealed that some of these munitions will develop leaks if they are transported; the transportation study revealed the tremendous complexity, increased risks, limitations of emergency response capability, and potentially prohibitive costs of collection alternatives; and the emergency response study revealed the extensive efforts and costs involved in developing adequate emergency response capabilities. The planning requirements of any transportation of chemical agents will result in absolutely no secrecy concerning movement. On the contrary, the route and schedule will almost certainly be widely publicized. No matter what size security force is provided, the complete safety of the munitions carriers cannot be guaranteed. The munitions carriers would

be an attractive terrorist target, and modern hand-held weapons have the range and destructive power to present a serious risk at ranges that make preventive action by any security force extremely difficult. Emergency response capability would be limited, far less than could be developed for actions limited to storage locations. The potentially affected environments along the proposed transportation routes expose areas of large populations and a wide variety of environments to the risks of serious accidents. The serious consideration being given by HHS officials to recommending evacuation along the transportation route if a collection alternative is selected indicates their perception of the risks involved in transporting these chemical agents and munitions. When the alternative disposal programs are evaluated in light of two very important considerations—which one will provide the least health risk to the general population, and which one will have the lowest potential for environmental harm—it is clear that on-site disposal of these agents and munitions is the most responsible choice among the alternatives.

While a final PEIS can support the determination that on-site disposal is generally safer than any collection alternative, final decisions for each individual storage site concerning the construction of disposal plants must await site-specific environmental documentation. The final site-by-site determinations must decide whether the generally higher risks presented by transportation are not outweighed by some unusual problems presented by a specific area. The transportation risks appear to be significantly greater than on-site disposal risks and, clearly, only very unusual site-specific problems can require reevaluation of transportation. This built in delay has the beneficial effect of providing additional time for JACADS testing and data compilation, which should serve to alleviate some concerns. Experience at JACADS can only serve to make later CONUS plants more efficient and safer from a public health perspective.

Perhaps the only absolute certainty involved in the future of the chemical disposal program is that, no matter which alternative is selected, a legal challenge will ensue. Although not a consideration, on-site disposal would serve to limit the location and number of legal challenges filed against the program simply because there would be fewer potentially affected locations. A collection alternative would subject the program to legal challenge by every jurisdiction that could be affected by transportation—a vast number. While it is possible that Congress could act to limit the potential for delay by legal challenges, such as by making the final program alternative choice by statute and exempting such selection from judicial review, it is not likely that Congress would choose to take direct action. Some state

legislatures have taken such actions when particularly difficult siting decisions had to be made, as with prison construction, but the U.S. Congress has shown no inclination to enter into this kind of decision making. The Army must anticipate challenges in federal court and insure that the administrative record is complete, containing the information to indicate that the final decision concerning the program alternative is environmentally responsible and reflects the priorities established by Congress. This will require the final administrative record to be extensive, containing not only the final EIS, but specific studies critical to the final decision. The information concerning health risks, transportation risks, emergency response limitations, and potential environmental harm has been developed to a very large degree, but does need to be assembled in final form and made part of the record.

While there is the potential for the President to exempt the program or a specific site from judicial review under the environmental statutes concerned and from procedural and substantive requirements of nonfederal officials, this is likely to occur only as a reaction to a serious threat to the program. The political leadership will view the program in the context of a requirement to maximize public support and minimize confrontation. The Army will need to make every reasonable effort to respond to the requirements of nonfederal officials before the political leadership will entertain a request for exemption from any nonfederal requirement.

Successfully completing a chemical stockpile disposal program represents a tremendous challenge for the Army. This program will likely cost over two billion dollars and require almost a decade to complete. Significant efforts have been expended already to develop the necessary data for reasonable program decisions to be made and to support those decisions during the certain judicial scrutiny they will receive. After current studies are completed, a final PEIS should be able to be published supporting the on-site disposal alternative. Site-specific environmental documentation will require some more detailed analysis, but should not reveal information requiring reevaluation of the program alternative. During this period, JACADS can be operationally verified, and CONUS construction should await complete JACADS data. While this delay will carry the disposal program out to 1998, it is acceptable from a public health perspective and does not place the Army in the unenviable position of arguing in defense of a destruction technology that has not been fully tested. By pursuing on-site disposal after full JACADS testing, the Army can complete this challenging mission with minimal risks to public safety and the environment.

APPENDIX ACRONYMS

ANAD—Anniston Army Depot
APG—Aberdeen Proving Ground
CAA—Clean Air Act
CAMDS—Chemical Agent Munitions Disposal System
CEQ—Council on Environmental Quality
CONUS—Continental United States
DA—Department of the Army
DATS—Drill and Transfer System
DOD—Department of Defense
DOT—Department of Transportation
DPEIS—Draft Programmatic Environmental Impact Statement
EA—Environmental Assessment
EIS—Environmental Impact Statement
EPA—Environmental Protection Agency
HHS—Department of Health and Human Services
JA—Johnston Atoll
JACADS—Johnston Atoll Chemical Agent Disposal System
LBAD—Lexington - Blue Grass Army Depot
NAAP—Newport Army Ammunition Plant
NEPA—National Environmental Policy Act
ORNL—Oak Ridge National Laboratories
PBA—Pine Bluff Arsenal
PCB—Polychlorinated Biphenyls
PEIS—Programmatic Environmental Impact Statement
PSD—Prevention of Significant Deterioration
PUDA—Pueblo Depot Activity
RCRA—Resource Conservation and Recovery Act
TEAD—Tooele Army Depot
TSCA—Toxic Substances Control Act
UMDA—Umatilla Depot Activity
USATHAMA—United States Army Toxic and Hazardous Materials Agency

NECESSITY AND THE MILITARY JUSTICE SYSTEM: A PROPOSED SPECIAL DEFENSE

by Captain Eugene R. Milhizer*

I. INTRODUCTION

The defense of necessity¹ may justify a nominal violation of the law in order to prevent a greater harm.² Ordinarily, the defense is available to one who intentionally causes a harm or evil contemplated by an offense, provided that the justifying circumstances result in a lesser net harm or evil as intended by the actor.³ The necessity defense

* Judge Advocate General's Corps, United States Army. Currently assigned as Instructor, Criminal Law Division, The Judge Advocate General's School. Formerly assigned as Senior Trial Counsel and Chief, Administrative and International Law, 25th Infantry Division (Light), 1984-1987; Trial Defense Counsel, Camp Humphreys, Korea, 1983-1984; Appellate Attorney, Government Appellate Division, 1980-1983. B.A. (high distinction), University of Michigan, 1976; J.D., University of Michigan, 1979; L.L.M. (First Honor Graduate), The Judge Advocate General's School, 1988. Coauthor, *The Military Death Penalty and the Constitution: There is Life After Furman*, 97 Mil. L. Rev. 35 (1982); *Effective Date of Forfeitures in Capital Cases: Receiving Pay on Death Row*, The Army Lawyer, Feb. 1983, at 27. Author, *Effective Prosecution Following Appellate Reversal: Putting Teeth into the Second Bite of the Apple*, Trial Counsel Forum, Apr. 1983; *Pleading and Proving Kidnapping Under 18 U.S.C. sec. 120(a)(2)*, Trial Counsel Forum, May 1983. Member of the bars of the United States Supreme Court, the United States Court of Claims, United States District Court for the Eastern District of Michigan, The United States Court of Military Appeals, the United States Army Court of Military Review, and the State of Michigan. This article is based on a research paper submitted in partial fulfillment of the requirements of the 36th Judge Advocate Officer Graduate Course.

¹ The defense is sometimes referred to as the "choice of evils," "lesser evils," or "conduct-which-avoids-greater evil" defense. See generally R. Perkins & R. Boyce, *Criminal Law* 1161 (3d ed. 1982); 2 P. Robinson, *Criminal Law Defenses* 45 (1984); United States Commission on Reform of Federal Criminal Laws, *Study Draft of a New Federal Criminal Code* § 608 (1970). For purposes of this article, the term "necessity" will be used.

² Some commentators instead view the necessity defense as negating an essential element of a crime. See Luckstead, *Choice of Evils: Defenses in Texas: Necessity, Duress, and Public Duty*, 10 Am. J. Crim. L. 179 n.1 (1982); see also *State v. Torphy*, 78 Mo. App. 206 (1899) (court holds police officer who plays cards in order to disarm and arrest gambler not guilty of violating gambling laws, as officer had no intent to gamble). Additionally, courts will sometimes avoid application of the necessity doctrine by finding an "implied exception" to the statute. See generally W. LaFave & A. Scott, *Handbook on Criminal Law* § 10 (1972).

³ See 2 P. Robinson, *supra* note 1, at 46. Necessity has been defined as "the assertion that conduct promotes some value higher than the literal compliance with the law." G. Williams, *Criminal Law: The General Part* § 229, at 722 (2d ed. 1961). Put a slightly different way, "necessity is available as a defense when the physical forces of nature or the pressures of circumstances cause the accused to take unlawful action to avoid a harm which social policy deems greater than the harm resulting from a violation of

is neither complex nor exotic; it has its origins in the common law,⁴ is explicitly included as part of the Model Penal Code,⁵ and "is recognized in about one-half of American jurisdictions."⁶

Many courts have nonetheless been reluctant to embrace the defense of necessity.⁷ Some of this resistance might be explained by a knee-jerk misapplication of the infamous lifeboat cases.⁸ It might also be due, in part, to a more generalized fear that private moral codes will be substituted for legislative determinations,⁹ resulting in a ne-

the law." *State v. Diana*, 24 Wash. App. 908, 913, 604 P.2d 1312, 1316 (1979). Thus, the defense of necessity formalizes the common sense proposition that "[i]t makes no sense to punish persons who have acted to avoid great harm, even if they have 'broken the law' to do so." Stein, *Comment on Justification and Excuse*, 1 Working Papers of the National Commission on Reform of Federal Criminal Laws 261, 270 (1968).

⁴See *infra* notes 19-59 and accompanying text; see also Arnolds & Garland, *The Defense of Necessity in Criminal Law: The Right to Choose the Lesser Evil*, 65 J. Crim. L. & Criminology 289, 291 (1974).

⁵Model Penal Code § 3.02 (proposed Official Draft 1962) [hereinafter Model Penal Code § 3.02] provides in relevant part:

- (1) Conduct which the actor believes to be necessary to avoid a harm or evil to himself or to another is justifiable, provided that:
 - (a) the harm or evil sought to be avoided by such conduct is greater than that sought to be prevented by the law defining the offense charged; and
 - (b) neither the Code nor other law defining the offense provides exceptions or defenses dealing with the specific situation involved; and
 - (c) a legislative purpose to exclude the justification claimed does not otherwise plainly appear.
- (2) When the actor was reckless or negligent in bringing about the situation requiring a choice of harms or evils or in appraising the necessity for his conduct, the justification afforded by this Section is unavailable in a prosecution for any offense for which recklessness or negligence, as the case may be, suffices to establish culpability.

⁶2 P. Robinson, *supra* note 1, at 45. Indeed, this statement probably underestimates the growing acceptance of the necessity defense. See *infra* notes 109-22 and accompanying text.

⁷Comment, *Necessity Defined: A New Role in the Criminal Defense System*, 29 U.C.L.A. L. Rev. 409, 410 (1981). Commentators have dryly noted that although even the gods bow to necessity, the same cannot be said of the courts. Winter & Lindeen, *The Last Ditch Defense: Necessity and the Choice of Evils*, The Army Lawyer, Dec. 1985, at 33. The authors quote Simonides, the ancient Greek epigrammatist, who observed: "An-
gaka d'oude theoi machontai" - literally: "Not even the gods fight necessity." Crosby & Schaeffer, *An Introduction to Greek* (1966).

⁸United States v. Holmes, 26 Fed. Cas. 360 (E.D. Pa. 1842) (No. 15,383); *Regina v. Dudley and Stephens*, [1884-85] 14 Q.B.D. 273. In both cases, the defense of necessity was asserted by the defendants to justify the killing of innocent persons aboard a lifeboat for the survival of the assailants. The defense was rejected in each instance. These cases do not, however, stand for the broader proposition that necessity should be a disfavored defense, even when an innocent life is taken. These cases will be discussed in greater detail *infra* notes 46-59 and accompanying text.

⁹The Model Penal Code Commentary expressly acknowledges this concern and attempts to address it, noting: "The balancing of evils cannot, of course, be committed

cessity exception that swallows the rule of law.¹⁰ Consequently, the defense often finds its most meaningful expression in ad hoc jury nullification¹¹ and unsupervised prosecutorial discretion.¹²

The military justice system has fared no better.¹³ The defense of necessity is not recognized by the *Manual for Courts-Martial*.¹⁴ The military courts likewise have not formally acknowledged the defense, but rather have given it an ad hoc, imprecise, and often confusing application.¹⁵ Accordingly, commanders and judge advocates are forced to make largely intuitive determinations regarding the disposition of cases where the necessity defense is potentially raised.¹⁶ Military judges are sometimes required to decide whether to admit evidence bearing on necessity and instruct on the issue without benefit of authoritative guidance.¹⁷ Where the necessity defense would apply, court members often must choose between violating their oath and the military judge's instructions, or convicting an accused who has acted admirably for society's aggregate benefit.¹⁸ In short, the military justice system is confronted with the paradox of a fundamental and innately logical defense that lacks express approval and definitive exposition. This often results in the misapplication of the defense or its outright failure to be applied.

This article seeks to address these problems by proposing a workable special defense of necessity for the military. Selected aspects of its adoption and application to courts-martial will be discussed. The consequences of failing to adopt a necessity defense will also be ana-

merely to the private judgment of the actor; it is an issue for determination in the trial." Model Penal Code § 3.02, Comment 5 (Tent. Draft No. 8, 1959).

¹⁰This fear is expressed by Justice Dickson of the Supreme Court of Canada, when he wrote in an abortion case that: "[n]o system of positive law can recognize any principle which would entitle a person to violate the law because in his view the law conflicted with some higher social value." *Morgentaler v. Regina*, [1976] 1 S.C.R. 616, 678. Sir James Stephen commented that the defense of necessity was so vague judges could create any rule they thought was expedient. J. Stephen, *Digest of Criminal Law*, Art. 11 (9th ed. 1952). Sir Walter Scott went even further, observing that "necessity creates the law; it supersedes rules." *The Gratitudine*, 3 C. Rob. 266, 165 Eng. Rep. 459 (In. 1801).

¹¹Arnolds & Garland, *supra* note 4, at 296-98.

¹²*Id.* at 298-301.

¹³See generally Winter & Lindeen, *supra* note 7, at 33-36.

¹⁴Manual for Courts-Martial, United States, 1984, Rule for Courts-Martial 916 [hereinafter R.C.M.], lists all the special defenses recognized for courts-martial. Necessity is not included there or elsewhere in the *Manual*. The *Manual* does provide for a defense of justification, R.C.M. 916(c), but this defense differs from the necessity defense in several important respects. See *infra* note 100.

¹⁵See *infra* notes 73-103 and accompanying text.

¹⁶See generally R.C.M. 303-307, 401-407, 601.

¹⁷See generally R.C.M. 801(a)(5), 920; J. Stephen, *supra* note 10.

¹⁸See generally R.C.M. 502(a)(2); Arnolds & Garland, *supra* note 4, at 296-98.

lyzed. Before any of these objectives can be accomplished, however, a brief overview of the defense's common law origins, military precedent, and current civilian usage is required.

II. THE COMMON LAW ORIGINS OF THE NECESSITY DEFENSE

The defense of necessity has deep roots¹⁹ and may be traced to the Bible itself.²⁰ Lord Bacon, writing in a different context, long ago observed that "if a man steals viands to satisfy his present hunger, this is no felony nor larceny."²¹

As early as the mid-sixteenth century, English law expressed the notion that a criminal act may not be punishable if it is a reasonable response to an emergency situation.²² In *Reninger v. Fagossa*,²³ for example, the court stated: "A man may break the word of the law, and yet not break the law itself . . . where the words of them are broken to avoid greater inconvenience, or thorough necessity, or by compulsion."²⁴

Several early English cases reflect recognition of the general principle of necessity.²⁵ Necessity justified breaking the law to save a life or extinguish a fire.²⁶ Although exposing an infected person to the public was a misdemeanor, necessity justified the exposure if the

¹⁹1 Wharton's Criminal Law 409 (C. Torcia 14th ed. 1978).

²⁰A biblical analogue to the necessity defense is the legitimate destruction of property to save human lives. "Then the mariners were afraid, and cried every man unto his god, and cast forth the wares that were in the ship into the sea, to lighten it of them." Jonah 1:5. The New Testament likewise expresses a notion of the necessity defense, justifying the eating of sacred bread or the taking of another's corn because of hunger. Matthew 12:3-4. To some, Christ's crucifixion represents the quintessential expression of necessity.

²¹Bacon's Maxims, Reg. 5 (n.d.). This, of course, is an overstatement of the present law. For the opposite view, see *People v. Whipple*, 100 Cal. App. 261, 279 P. 1008 (Cal. Ct. App. 1929) (court says in dicta that "economic necessity" is never a defense, even in the extreme case, as where a father burglarizes a bakery for the sole purpose of procuring bread for his starving babies).

²²Comment, *supra* note 7, at 409 n.1. For a thorough discussion of the early development of the necessity defense in English law, see Arnolds & Garland, *supra* note 4, at 291-92.

²³[1551] *Plowd.* 1, 75 Eng. Rep. 1.

²⁴*Id.* at 19, 75 Eng. Rep. at 29-30.

²⁵See *Garland v. Carlisle*, 2 C&M 77, 149 Eng. Rep. 681 (Ex. 1837) (per curiam); *Manby v. Scott*, 1 *Levins* 4, 83 Eng. Rep. 268 (K.B. 1672); *Hobart, Colt v. Coventry*, Hob. 300, 80 Eng. Rep. 307 (K.B. 1612); *Moore v. Hussey*, Hob. 227, 80 Eng. Rep. 246 (K.B. 1609); *Coke, Mouse's Case*, 7 Co. Rep. 63, 77 Eng. Rep. 1341 (K.B. 1608); see also 1 *Britton* 113 (Nichols ed. 1865); 1 *Thrope, Ancient Laws and Institutes of England*, § 13, at 47-49 (1840); 4 *Blackstone, Commentaries* 186 (n.d.).

²⁶*Cope v. Sharpe*, [1912] 1 K.B. 496; *Regina v. Tolson*, [1899] 23 Q.B. 172; *Governor, etc. of Cast Plate Manufacturers v. Meredith*, 4 T.R. 794, 100 Eng. Rep. 1306 (K.B. 1792).

person was being taken to a doctor.²⁷ In case of emergency, jurors could depart without permission of the judge.²⁸ Necessity might even permit prisoners to escape from a burning jail.²⁹

Early federal cases also recognize the necessity defense.³⁰ Necessity justified a violation of the embargo act by entry into a foreign port.³¹ In the proper case, the courts would find mutiny justified where a ship was unseaworthy.³² Foul weather and a resulting long delay in reaching port justified withholding food from a ship's crew contrary to statute.³³ One court even observed that high treason, parricide, murder, and other serious crimes might be justified by necessity.³⁴

Several generalizations can be drawn from the foregoing authority. First, the necessity defense was available at common law.³⁵ Second, in order to trigger the defense, the act charged must have been done to avoid a significant evil.³⁶ Third, no alternative means of action could have been available to the defendant.³⁷ Finally, the response must have been proportional to the evil avoided.³⁸

Although these principles can be derived from this authority, the development of the defense was neither smooth nor comprehensive.³⁹

²⁷Vantandillo, 4 M&S 73, 105 Eng. Rep. 762 (K.B. 1815).

²⁸[1499] Y.B.T. 14 H.7 296, at 4.

²⁹Renninger v. Fagossa, 1 Plowd 1, 75 Eng. Rep. 1 (K.B. 1551); Y.B.T. 15 H. 72a, at 2; see also Baender v. Barnett, 255 U.S. 224 (1921).

³⁰For a thorough discussion of the early development of the necessity defense in American law, see Arnolds & Garland, *supra* note 4, at 292-94.

³¹The William Grey, 29 F. Cas. 1300 (No. 17,694) (C.C.D. N.Y. 1810); *see also* The Diana, 74 U.S. 354 (1864) (to justify a vessel of a neutral party in attempting to enter a blockaded port, she must be in such distress as to render her entry a matter of absolute and uncontrollable necessity); The Struggle, 13 U.S. (9 Cranch) 71 (1815) (severe weather and damage to the ship did not necessitate sailing to an unauthorized port).

³²United States v. Ashton, 24 F. Cas. 873 (No. 14,740) (C.C.D. Mass. 1834); *accord* United States v. Bordon, 24 F. Cas. 1202 (No. 14,625) (D.C.D. Mass. 1857); United States v. Nye, 27 F. Cas. 210 (No. 15,906) (C.C.D. Mass. 1855); United States v. Staley, 27 F. Cas. 1290 (No. 16,374) (C.C.D. R.I. 1846).

³³United States v. Reed, 86 F. 308 (C.C.S.D. N.Y. 1897).

³⁴United States v. Ashton, 24 F. Cas. 873 (No. 14,470) (C.C.D. Mass. 1834).

³⁵Arnolds & Garland, *supra* note 4, at 291. This proposition, however, is not beyond dispute. Compare Williams, *Defense of Necessity*, 6 Crim. L. Rev. 216 (1953) with Glazebrook, *The Necessity Plea in English Criminal Law*, 30 Cambridge L.J. 87 (1972).

³⁶Arnolds & Garland, *supra* note 4, at 294. A more relaxed interpretation of these cases would hold that the evil avoided need only be greater than the evil inflicted.

³⁷*Id.* This requirement was not always strictly observed, as the courts typically would not require that all irrational but legal alternatives be tried or considered before the defense was allowed. The standard nonetheless remained strict, probably because of a fundamental judicial disfavor of the defense for the reasons set forth *supra* notes 9-10.

³⁸Arnolds & Garland, *supra* note 4, at 294.

³⁹Comment, *supra* note 7, at 409; *see also* J. Hall, *General Principles of the Criminal Law* 416 (2d ed. 1960).

Commentators have noted that the "defense is susceptible to ad hoc applications as it is intimately tied to the particular facts of each case."⁴⁰ Moreover, there are comparatively "few cases dealing with necessity, probably because these cases are often not prosecuted."⁴¹ Also, "[m]ost of the precedential decisions deal with instances when the defense is not available, thereby providing no clear guide for when it is."⁴² Contributing difficulties include "the frequent failure of judges to discuss the doctrine in terms of relevant principles."⁴³ These problems have caused some commentators to lament that "it is impossible to demonstrate with any degree of satisfaction the historical development of the law of necessity."⁴⁴

Against this backdrop, an English and an American court addressed the two celebrated lifeboat cases, which raise the defense of necessity in its most fundamental yet controversial form.⁴⁵ In the English case,⁴⁶ two sailors and a cabin boy were adrift in a lifeboat more than 1000 miles from land following a shipwreck. On the twentieth day, having been nine days without food and seven days without water, the sailors killed the cabin boy, who was then in the weakest condition. The sailors fed upon his flesh and drank his blood until their rescue four days later. All three would have probably died had not one of them been killed and eaten.

The two sailors were convicted of murder. In affirming the convictions, the court focused on the innocence of the cabin boy, emphasizing that he was "the weakest, the youngest, the most unresisting."⁴⁷ The court held that under English law "a killing could be justified only if the deceased were the aggressor, i.e., only if the defendant acted in self-defense of another."⁴⁸ The court concluded that to claim ne-

⁴⁰Comment, *supra* note 7, at 409-10.

⁴¹Arnolds & Garland, *supra* note 4, at 294. A closely related problem is that the cases which best frame the issue of necessity often result in acquittal, and thus do not provide general guidance. For example, some commentators cite *State v. Wooton*, Crim. No. 2685 (Cochise City, Ariz. Sept. 13, 1919), as providing perhaps the fullest judicial discussion of the doctrine of necessity. Arnolds & Garland, *supra* note 4, at 292. As the case resulted in an acquittal, it remains unreported and thus its precedential value is limited. See generally Comment, *The Law of Necessity as Applied to the Bisbee Deportation Case*, 3 Ariz. L. Rev. 264 (1963).

⁴²Comment, *supra* note 7, at 410 (emphasis deleted).

⁴³Arnolds & Garland, *supra* note 4, at 294.

⁴⁴*Id.*

⁴⁵The controversial aspects of the lifeboat cases are well documented. See generally 2 P. Robinson, *supra* note 1, at 63-68; Arnolds & Garland, *supra* note 4, at 294; and the authorities cited *infra* note 56.

⁴⁶*Regina v. Dudley and Stephens*, [1884-85] 14 Q.B.D. 273.

⁴⁷*Id.* at 287.

⁴⁸2 P. Robinson, *supra* note 1, at 64, discussing *Regina v. Dudley and Stephens*, [1884-85] 14 Q.B.D. 273.

cessity that could justify the killing of a nonaggressor was "at once dangerous, immoral, and opposed to all legal principles and analogy."⁴⁹

The American case⁵⁰ also involved the survivors of a shipwreck. The defendant seaman helped throw fourteen passengers overboard from the capsizing lifeboat to save the others. The court acknowledged that the necessity defense was potentially available in such circumstances, even where innocent lives were taken.⁵¹ The defense was, nevertheless, rejected on the particular facts of the case. The court found that the defendant owed a special duty to the passengers because of his status as a sailor, and that the means for selecting who to jettison were unfair.⁵²

The decisions raise many troubling issues. Professor Robinson suggests that the American decision embodies the utilitarian approach of measuring lives lost against lives saved.⁵³ He concludes that the English decision, on the other hand, "may represent the principled philosophy that the value of innocent human life is an absolute that cannot be sacrificed, even for the interest of saving more lives."⁵⁴ Other commentators suggest that the question is confused in *Dudley*,⁵⁵ the English decision, because of the element of cannibalism.⁵⁶ Even if the utilitarian approach is adopted, the question of self preference remains unresolved by these cases.⁵⁷ A substantial issue of deterrence is also raised.⁵⁸ Regardless of how these and other issues

⁴⁹Regina v. Dudley and Stephens, 14 Q.B.D. at 288.

⁵⁰United States v. Holmes, 26 Fed. Cas. 360 (E.D. Pa. 1842) (No. 15,383).

⁵¹*Id.* at 366.

⁵²*Id.* at 367. The court suggested that the occupants of the lifeboat draw lots.

⁵³2 P. Robinson, *supra* note 1, at 64. This view is reflected in the commentary to the Model Penal Code. See generally Model Penal Code § 3.02, Comment 8 (Tent. Draft No. 8, 1958).

⁵⁴2 P. Robinson, *supra* note 1, at 64-65. Justice Cardozo later supported this position, writing: "[W]ho shall know when masts and sails of rescue may emerge out of the fog." B. Cardozo, *Law and Literature* 113 (1931).

⁵⁵Regina v. Dudley and Stephens, 14 Q.B.D. at 288.

⁵⁶See Cahn, *The Moral Decision* 71 (1956); Fuller, *The Speluncean Explorers*, 62 Harv. L. Rev. 616 (1949); Stallybrass, *Principles of Criminal Law in England*, 14 J. Comp. Leg. & Int'l L. 233, 237 (1932).

⁵⁷Justice Holmes would apparently allow the taking of innocent life to save one's own. O. Holmes, *The Common Law* 40 (1881). Professor Robinson offers several factors for choosing among lives without regard to self preference, e.g., preferring the non-aggressor, preferring the otherwise unendangered life, preferring the longer life, and preferring the life that did not contribute to the threat. 2 P. Robinson, *supra* note 1, at 66-69. Other commentators have queried "if self preference is proper, but not when there is a duty owed as between crew and passengers, is it good to lay down a rule that might result in sailors throwing all passengers overboard so there will be no witnesses?" Arnolds & Garland, *supra* note 4, at 295.

⁵⁸Even if self preference is deemed illegal, the threat of future punishment would not have deterred the killings in *Holmes* and *Dudley*. This raises the issue of whether the law should punish where there is no possible deterrent effect. See Hitchler, *Duress as a Defense in Criminal Cases*, 4 Va. L. Rev. 519 (1917).

are resolved, however, both courts correctly adopted and employed a necessity analysis to decide the cases.⁶⁰

III. THE NECESSITY DEFENSE IN THE MILITARY

Early civilian court decisions applying the defense of necessity to the military are scarce.⁶¹ As noted earlier, some courts concluded that mutiny might be justified by necessity where a ship was unseaworthy.⁶² One court observed in dicta that necessity could also justify high crimes such as treason.⁶³ Still, few reported cases prior to World War II squarely addressed the necessity defense in the military.

One of the most comprehensive early discussions of necessity as applied to the military is found in *Mitchell v. Harmony*,⁶⁴ decided in 1841. During the Mexican-American War, an American trader travelled into the adjoining Mexican provinces to conduct lawful trade with the local inhabitants. These provinces were in the possession of the American military authorities. An American Army officer later seized the trader's property, claiming that the taking was necessary to prevent it from falling into enemy hands. The court held that a temporary seizure of the property for this purpose would be justified by necessity, provided that the danger was "immediate and impending, and not remote or contingent."⁶⁵ Moreover, the property could be taken permanently "for public use and . . . public service, in case of immediate and pressing danger or urgent necessity existing at the time, but not otherwise."⁶⁶ The court refused to reverse the trespass judgment against the officer, however, finding that the question was factual and the jury determination should not be disturbed.⁶⁷

⁶⁰ Some commentators question whether the court in *Dudley* applied a necessity analysis. See, e.g., 2 P. Robinson, *supra* note 1, at 64 n.61. Interestingly, the punishment imposed in both cases was identical: Holmes was convicted of manslaughter rather than murder and received six months confinement, while Dudley and Stephens were convicted of murder but had their sentences commuted to six months confinement. See *id.* at 65 n.63.

⁶¹ Many of the early federal cases which raise the necessity defense in the maritime context have a military aspect. See *supra* notes 31-33.

⁶² *United States v. Ashton*, 24 F. Cas. 873 (No. 14,470) (C.C.D. Mass. 1834) (court held that if a ship were unseaworthy, sailors would be justified in refusing to obey their captain's orders that exposed the ship to danger); *accord United States v. Bordon*, 24 F. Cas. 1202 (No. 14,625) (D.C.D. Mass. 1857); *United States v. Nye*, 27 F. Cas. 210 (No. 15,906) (C.C.D. Mass. 1855); (*United States v. Staley*, 25 F. Cas. 1290 (No. 16,374) (C.C.D. R.I. 1846).

⁶³ *United States v. Ashton*, 24 F. Cas. 873 (No. 14,470) (C.C.D. Mass. 1834); see also *D'Aquino v. United States*, 192 F.2d 338 (9th Cir. 1951) (in the trial of Tokyo Rose for treason, the court gave an extremely strict application of the necessity defense).

⁶⁴ 54 U.S. (13 How.) 115 (1841).

⁶⁵ *Id.* at 133.

⁶⁶ *Id.*

⁶⁷ *Id.* at 133-34.

Several decades later, the Rhode Island Supreme Court applied the necessity defense to a reserve sailor. In *State v. Burton*,⁶⁷ a member of the United States Naval Reserve Force, on duty as a dispatch driver, was arrested for exceeding the local speed limit. At the time he was delivering an urgent message pursuant to the command of his superior officer. The court found that the nominal violation of the speeding law was justified by public necessity, stating that the defense is "without application to cases which show a failure to comply with our laws and ordinances when no military necessity exists."⁶⁸

The principle of necessity as a defense in the military context was indirectly raised in *Korematsu v. United States*,⁶⁹ the infamous World War II internment case. The Supreme Court found constitutional a military order⁷⁰ that prevented some persons of Japanese descent from entering their homes and communities. The court determined that sufficient "apprehension by the proper military authorities of the gravest imminent danger to the public safety can constitutionally justify"⁷¹ the exclusion of persons from their homes. The court stated that "the power to protect must be commensurate with the threatened danger."⁷²

Military appellate courts and other military authorities have explicitly and implicitly applied the necessity defense to potential violations of military law.⁷³ In 1865, The Judge Advocate General op-

⁶⁷ 41 R.I. 303, 103 A. 962 (1918).

⁶⁸ *Id.* at 305, 103 A. at 963.

⁶⁹ 323 U.S. 214 (1944).

⁷⁰ Civilian Exclusion Order No. 34, the order at issue, was promulgated by the Commanding General of the Western Defense Command under the authority of Executive Order No. 9066 and the Act of March 21, 1942. See *Korematsu v. United States*, 323 U.S. at 216-17. Its purpose was to protect against espionage and sabotage by excluding all persons of Japanese ancestry from designated West Coast military areas. *Id.*

⁷¹ *Id.* at 218.

⁷² *Id.* at 220. The *Korematsu* case does not frame a pure necessity issue, as the order in question, although intended to achieve a lesser net harm or evil, was based on legislative and executive authority. Thus, the balance of lesser evils had been struck by law, and the court was tasked with reviewing the constitutionality of that balance. Some commentators—perhaps confusing distinct concepts of a necessity defense which justify a violation of the law with that of a legislative basis for a law based on necessity—have inaccurately cited *Korematsu* as a case recognizing the necessity defense. See, e.g., Arnolds & Garland, *supra* note 4, at 292. This analytical imprecision reflects a broader confusion about the necessity defense that is shared by legislators, judges, and commentators alike.

⁷³ This application, however, has generally been confused in one of two ways. Military courts have sometimes addressed the issue of duress in terms of necessity. See, e.g., *United States v. Fleming*, 19 C.M.R. 438, 450 (A.B.R. 1955) (necessity inappropriately cited as a possible defense); cf. *United States v. Hollum*, 15 M.J. 261 (C.M.A. 1983) (necessity inappropriately cited in headnote 2, although not discussed in the court's opinion). More often, courts have addressed the issue of necessity in terms of duress. See generally *infra* notes 78-97 and accompanying text.

ined that the fear of death by starvation could justify the desertion of Union soldiers and their subsequent induction into the Confederate Army.⁷⁴ The opinion, which was incorrectly premised upon a duress rationale rather than necessity, was rejected as precedent by the Army Board of Review.⁷⁵

An early appellate military decision, which likewise borrowed from a duress rationale, approved of the following instruction for the necessity defense: "The term necessity has various meanings in the law, but in the sense of a defense to a crime, it has a general meaning of some unavoidable circumstance, condition, or fact which leaves no choice of action."⁷⁶ The instruction provided further that, "[i]n order to excuse a criminal act on the ground of . . . necessity, one must have acted on a well-grounded apprehension of immediate and impending death or of immediate, serious, bodily harm."⁷⁷

In more recent appellate military decisions the courts have likewise applied a duress of coercion rubric to circumstances raising the defense of necessity.⁷⁸ For example, in *United States v. Montford*,⁷⁹ the accused explained that he went AWOL because he needed to return home "to straighten out an 'extreme family situation' involving his brother-in-law, his sister, and his mother."⁸⁰ Finding that the strict triggering requirements for duress were not met,⁸¹ the court affirmed

The distinction between necessity and duress is fundamental. Necessity is a defense of justification; it exculpates justified conduct. Duress, on the other hand, is a defense of excuse; it excuses a pressured or coerced actor. *See generally* 1 P. Robinson, *supra* note 1, at 108; Arnolds & Garland, *supra* note 4, at 290. *But see* Comment, *supra* note 7, at 139-45 (necessity is neither justification nor excuse, but is a hybrid defense). Put another way, society would thank one who acts out of necessity, while merely excusing one who acts out of duress. This confusion of duress and necessity has often resulted in improper limitations being put on the defense of necessity, Arnolds & Garland, *supra* note 4, at 290 n.18, and contributed to an erosion of the strict requirements of duress. *See infra* note 135.

⁷⁴ Dig. Op. JAG (1868), at 290, para. 10.

⁷⁵ *United States v. Fleming*, 19 C.M.R. at 450.

⁷⁶ *Id.*

⁷⁷ *Id.* Note that the instruction mischaracterizes necessity as a defense of excuse rather than of justification. *See supra* note 73. The strict triggering requirements for the defense, as set forth in the quoted instruction, were apparently based on civilian precedent. *See United States v. Fleming*, 19 C.M.R. at 450, and the cases cited therein. They were later adopted with little change for the defense of duress in the *Manual for Courts-Martial, United States, 1969* (Rev. ed.), para. 216f, [hereinafter MCM, 1969].

⁷⁸ *See supra* note 73.

⁷⁹ 13 M.J. 829 (A.C.M.R. 1982).

⁸⁰ *Id.* at 831.

⁸¹ The court found that the accused was "not apprehensive about death or serious bodily harm for his family." *Id.* This basis for duress closely resembles a later change to the pertinent provision of the 1984 version of the *Manual for Courts-Martial*. *See* R.C.M. 916(h), *quoted infra* note 102.

the conviction.⁸² Conspicuous by its absence was a principled application of the necessity defense. In this regard, the court did not consider whether the evil inflicted, an unauthorized absence, was justified by the evil thereby avoided, extreme family difficulties.⁸³

Three cases which raise the necessity issue involve facial violations of military law because of the fear of injury. In one case, the accused claimed he went AWOL because he believed that his assigned duties in the mess hall would aggravate his eye injury.⁸⁴ In the second case, the accused said he went AWOL because the rigorous physical training at the United States Army Retraining Brigade, contrary to the restrictions of his medical profile, had aggravated an ankle injury.⁸⁵ In the third case, the accused refused to perform duties in the reactor compartment of a nuclear submarine, claiming that he feared exposure to dangerous levels of radiation.⁸⁶ Each case was evaluated in terms of whether duress, rather than necessity, was a defense to the conduct.⁸⁷ The findings of guilty were affirmed in the first⁸⁸ and third⁸⁹ cases but were set aside in the second.⁹⁰

⁸²United States v. Montford, 13 M.J. at 832.

⁸³Although the facts in *Montford* do not make out a compelling case for the necessity defense, such circumstances could be easily imagined. Suppose the evidence clearly showed that the accused's failure to immediately go AWOL from routine duties to help his family would somehow have resulted in the certain destruction of millions of dollars of property used by relief agencies? This anticipated evil would not satisfy the triggering requirements for duress set forth by the court in *Montford*. *Id.* at 831. Yet, necessity would justify this nominal violation of military law if the unauthorized absence was of a short duration, did not prejudice important military duties, and was the only available alternative to the greater evil.

⁸⁴United States v. Guzman, 3 M.J. 740, 742 (N.C.M.R.), *rev'd on other grounds*, 4 M.J. 110 (C.M.A. 1977). Medical authorities limited the accused to light duties because of an eye injury requiring seven sutures. Despite these restrictions, the accused was apparently ordered to work in a "pot shack" area where the ambient temperature regularly exceeded 100 degrees Fahrenheit. Fearing further injury, the accused went AWOL without appealing the order imposing this duty. *Id.*

⁸⁵United States v. Hansen, SPCM 21155 (A.C.M.R. 25 Oct. 1985) (unpub.). The accused was diagnosed as having a degenerative bone disease in his left ankle. Contrary to his permanent profile, he was required to participate in calisthenics, runs of various distances (some while carrying substantial burdens), and a three-mile run every morning. Eventually the accused's condition worsened so that he could not remove his boot in less than an hour or climb stairs. When the accused complained to authorities, the form reflecting the profile was ripped up by the senior drill sergeant. The accused then went AWOL to seek medical attention at a civilian facility. *Id.* slip op. at 2.

⁸⁶United States v. Talty, 17 M.J. 1127 (N.M.C.M.R.), *pet. denied*, 19 M.J. 237 (C.M.A. 1984). Specifically, the accused feared that the exposure to the radiation would cause irreparable genetic damage. *Id.* at 1129.

⁸⁷United States v. Hansen, SPCM 21155, slip op. at 2-3; United States v. Talty, 17 M.J. at 1129; United States v. Guzman, 3 M.J. at 742. The reported opinions do not indicate whether defense counsel requested an instruction on the defense of necessity.

⁸⁸United States v. Guzman, 3 M.J. at 743.

⁸⁹United States v. Talty, 17 M.J. at 1131.

⁹⁰United States v. Hansen, SPCM 21155, slip op. at 3.

The application of the duress defense to these cases is strained. In none of the cases was the accused or others threatened with death or serious injury unless the accused engaged in conduct which violated the law, as is required for duress. Rather, each accused engaged in a cost-benefit determination of whether a nominal violation of the law would result in avoiding a greater evil. Put another way, each accused evaluated whether the likelihood and severity of the potential injury justified his illegal conduct. This balancing process embodies the doctrine of necessity in its purest form.⁹¹

Applying the necessity defense to the facts of these cases would not necessarily result in a different disposition. The accused's conviction in the second case⁹² would have also been reversed using a necessity analysis, as his absence from routine duties in the Retraining Brigade is clearly a lesser evil than the infliction of severe and potentially permanent injury. Because no other alternative was reasonably available—the drill sergeant had ripped up the accused's "profile"—necessity justified the absence. Likewise, the conviction in the third case⁹³ would also have been affirmed using a necessity analysis. First, the evidence did not support a finding that the injury feared by the accused was likely or even possible. Second, Congress and the President had implicitly removed from the accused's province any discretion to balance the routine dangers associated with working in a nuclear submarine with his duty obligations.⁹⁴

Only in the first of the three cases⁹⁵ might the result be different with application of the necessity defense. This is unclear, however, as the reported facts in the first case⁹⁶ are not sufficiently developed to determine the likelihood and severity of the potential injury to the accused, the relative importance of the accused's duty, and the availability to the accused of alternative means to avoid injury while complying with the letter of the law. The absence of an authoritative necessity defense in the military could help explain this lack of factual exposition in the appellate decision.⁹⁷

⁹¹ See generally 1 P. Robinson, *supra* note 1, at 108.

⁹² United States v. Hansen, SPCM 21155, slip op. at 3.

⁹³ United States v. Talty, 17 M.J. at 1131.

⁹⁴ The supremacy of the community's balance of interests, especially as expressed through the legislature, is always paramount as compared to that of the individual. 2 P. Robinson, *supra* note 1, at 50-52. By appropriating money for nuclear submarines and the sailors to man them, Congress has removed the safety question from the ambit of individual discretion. This aspect of the necessity defense is more fully discussed *infra* notes 145-55 and accompanying text.

⁹⁵ United States v. Guzman, 3 M.J. 740 (N.C.M.R. 1977).

⁹⁶ *Id.* at 742.

⁹⁷ Even assuming the appellate court wanted to consider the facts bearing on the issue of necessity, those facts would probably not be developed in the record of trial

Ironically, the reported military case which perhaps best frames the doctrine of necessity never even mentions that word. In *United States v. Perez*,⁹⁸ the accused was convicted of negligent homicide for the death of her child. The child died while in the care of the accused's boyfriend. The accused had previously been counseled not to leave the child with the boyfriend, as the child had sustained serious injuries on two earlier occasions when left with him. When the accused was unexpectedly called to duty, she again left the child with her boyfriend. The child later died of injuries inflicted during that period.

If the necessity defense had been applied to this case, the fact finder would have been required to evaluate whether the accused's decision to perform her unexpected military duties justified leaving her child with her boyfriend. Unfortunately, the reported facts are insufficiently developed to permit this balance now to be drawn. Specifically, the importance of the duty, the certainty and magnitude of the threat to the child, and the extent to which the accused sought other arrangements are unclear.⁹⁹ Nevertheless, the requirement of the appellate court to weigh these factors in deciding whether to affirm the conviction seems obvious. The apparent failure of the appellate court to even consider these issues vividly demonstrates the need in the military for authoritative guidance with respect to the defense of necessity.

If the military's appellate court decisions provide little guidance as to the necessity defense, then the *Manual for Courts-Martial* provides none at all. No version of the *Manual* explicitly discusses the necessity defense.¹⁰⁰ Although the defense of coercion and duress are specifi-

for the court's consideration. Absent the incorporation of an authoritative defense of necessity, counsel may not attempt to present evidence on the issue. Assuming counsel tries to present such evidence, the military judge might grant a motion objecting to its presentation on grounds of relevance. Only with authoritative recognition of the necessity defense will the pertinent facts be routinely developed.

⁹⁸ 15 M.J. 585 (A.C.M.R. 1983).

⁹⁹ *Id.* at 586-87. This lack of adequate factual development is probably explained because of the reasons noted *supra* note 97.

¹⁰⁰ See generally MCM, 1984; MCM, 1969; Manual for Courts-Martial, United States, 1951; Manual for Courts-Martial, United States, 1949; Manual for Courts-Martial, United States, 1928; Manual for Courts-Martial, United States, 1921. The current *Manual* does provide for the related defense of justification in the following terms: "A death, injury, or other act caused or done in the proper performance of a legal duty is justified." R.C.M. 916(c). This justification defense is thus more narrow than the defense of necessity, as the act at issue must be undertaken because of duty imposed by statute, regulation, or order. R.C.M. 916(c) discussion. "For example, the use of force by law enforcement officers when reasonably necessary in the proper execution of a lawful apprehension is justified because the duty to apprehend is imposed by lawful order. Also, killing an enemy combatant in battle is justified." *Id.* The *Manual's* justification defense would not, however, justify the destruction of property to create a firebreak or the taking of equipment to accomplish a rescue, absent a specific duty to take such action. Accordingly, the *Manual's* justification defense is not a substitute for the proposed necessity defense.

cally set forth in the 1969¹⁰¹ and 1984¹⁰² editions of the *Manual*, neither is particularly helpful in providing guidance as to necessity. Additionally, commentators discussing the necessity defense in the military confuse the doctrine with coercion and duress.¹⁰³

In summary, the defense of necessity has rarely been applied within the military justice system. Its limited application has typically been in the form of jury nullification and prosecutorial discretion, or in the guise of duress or justification.

IV. THE CURRENT STATUS OF THE NECESSITY DEFENSE IN CIVILIAN JURISDICTIONS

Commentators have noted that "it is difficult, absent statutes, to state with certainty in what jurisdictions the defense [of necessity] . . . is clearly recognized."¹⁰⁴ The difficulty arises primarily from the many problems identified earlier.¹⁰⁵ These include the predilection of

¹⁰¹ MCM, 1969, para. 216f, provides as follows:

Coercion or duress. Except when he kills an innocent person, a person cannot properly be convicted of committing an act for which he would otherwise be criminally responsible if his participation in it is caused by the degree of coercion or duress recognized by the law as a defense. This degree of coercion or duress is a reasonably grounded fear on the part of the actor that he would be immediately killed or would immediately suffer serious bodily injury if he did not commit the act. The fear compelling the act must be of immediate death or serious bodily injury and not of an injury in the future or of an injury to reputation or property. The threat must continue throughout the perpetration of the act. If the accused has a reasonable opportunity to avoid committing the act without subjecting himself to the threatened danger, his act is not excusable.

¹⁰² R.C.M. 916(h), provides as follows:

Coercion or duress. It is a defense to any offense except killing an innocent person that the accused's participation in the offense was caused by a reasonable apprehension that the accused or another innocent person would be immediately killed or would immediately suffer serious bodily injury if the accused did not commit the act. The apprehension must reasonably continue throughout the commission of the act. If the accused has any reasonable opportunity to avoid committing the act without subjecting the accused or another innocent person to the harm threatened, this defense shall not apply.

The only significant change from the 1969 *Manual* provision is to permit the accused to qualify for the defense while attempting to protect persons other than himself from harm. R.C.M. 916(h) analysis.

¹⁰³ See, e.g., Winter & Lundein, *supra* note 7 (the authors cite to the *Manual* provisions for duress as establishing the defense of necessity in the military, and cite numerous decisions of the military appellate courts addressing the defense of duress as authority for the defense of necessity).

¹⁰⁴ Arnolds & Garland, *supra* note 4, at 291.

¹⁰⁵ See *supra* notes 39-44 and accompanying text.

some courts for merging necessity with other justification defenses,¹⁰⁶ confusing necessity with duress,¹⁰⁷ or failing to recognize the necessity defense formally while nonetheless applying its analysis.¹⁰⁸

Despite these problems, several jurisdictions have clearly adopted or created some form of the necessity defense by judicial decision.¹⁰⁹ At least three federal circuit courts have explicitly recognized the necessity defense.¹¹⁰ No recent federal case purports to categorically reject the defense of necessity.¹¹¹ Accordingly, especially when considered in combination with earlier federal precedent,¹¹² a strong case can be made that the necessity defense has gained general acceptance in federal law.¹¹³

Numerous state courts have also applied the necessity defense absent specific statutory authorization.¹¹⁴ These courts have found, for example, that property may be destroyed to prevent the spread of fire¹¹⁵ or disease,¹¹⁶ speeding may be justified to avoid unlawful arrest

¹⁰⁶ See, e.g., *United States v. Simpson*, 460 F.2d 515 (9th Cir. 1972).

¹⁰⁷ See e.g., *United States v. Cullen*, 454 F.2d 386, 391 n.13 (7th Cir. 1971) ("The rule is the same whether the label is 'compulsion,' 'coercion,' or 'necessity' . . ."). See generally *supra* note 73.

¹⁰⁸ See *Luckstead, supra* note 2, at 179 n.1; see also *United States v. Torphy*, 78 Mo. App. 206 (1899); W. LaFave & A. Scott, *supra* note 2, at sec. 10.

¹⁰⁹ For a comprehensive list of jurisdictions which have adopted the necessity defense, see 2 P. Robinson, *supra* note 1, at 45-56 n.1.

¹¹⁰ See *United States v. Lowe*, 654 F.2d 562, 566-67 (9th Cir. 1981) (court recognizes the necessity defense but denies it in the case at bar); *United States v. Koncke*, 459 F.2d 697, 700-01 (8th Cir. 1972) (necessity does not justify unlawful interference with the Selective Service Administration because of the claimed immorality of the Viet Nam War); *United States v. Soileau*, 67 F.2d 259, 260 (5th Cir. 1933) (necessity does not justify escape from prison because of an irregular or voidable sentence); cf. *Townsend v. United States*, 95 F.2d 352, 358 (D.C. Cir.), cert. denied, 303 U.S. 664 (1938) (necessity defense indirectly approved, in some circumstances, as a type of justification defense).

¹¹¹ For example, although courts have uniformly refused to apply the necessity defense in cases where war protesters destroyed Selective Service records, some courts have declined to reach the broader question of whether necessity could apply in other circumstances. See, e.g., *United States v. Chase*, 468 F.2d 141 (7th Cir. 1972); *United States v. Glick*, 463 F.2d 491 (2d Cir. 1972).

¹¹² See *supra* notes 30-34 and accompanying text.

¹¹³ Modern English cases also recognize the necessity defense. See, e.g., *Colder and Boyers, Ltd.*, [1969] 1 Q.B. 151 (publication for the common good justifies the publication of obscenity); *Rex V. Bourne*, [1939] 1 K.B. 686 (saving a mother's life justifies abortion); *Adams* (1957), unreported, cited in G. Williams, *supra* note 3, at 726 (the use of medication which hastens death was justified as it saved the patient from suffering pain). See generally *Arnolds & Garland, supra* note 4, at 291-92.

¹¹⁴ A comprehensive review of these cases can be found in *Arnolds & Garland, supra* note 4, at 292. See also 2 P. Robinson, *supra* note 1, at 45-46 n.1.

¹¹⁵ See, e.g., *Keller v. City of Corpus Cristi*, 50 Tex. 614 (1879); *Field v. City of Des Moines*, 39 Ia. 575 (1874); *Surocco v. Geary*, 3 Cal. 69 (1853); *Cromwell v. Emrie*, 2 Ind. 35 (1850); *Hale v. Lawrence*, 21 N.J.L. 714 (N.J. 1848), aff'd sub. nom. *American Print Works v. Lawrence*, 23 N.J.L. 590 (Ct. of Errors and Appeals 1851).

¹¹⁶ *Seavy v. Preble*, 64 Me. 120 (1874).

or ambush,¹¹⁷ and selling alcohol without a prescription may be justified in an emergency.¹¹⁸ Similarly, removing a sick child from school without permission is justified if done for the child's health.¹¹⁹

At least twenty other states¹²⁰ and three territories or protectorates¹²¹ have codified some variation of the necessity defense. They comport in varying degrees to the pertinent provisions of the Model Penal Code.¹²²

All of the foregoing authority supports the conclusion that the distinct defense of necessity is currently accepted by a majority of American jurisdictions. This does not mean, however, that an identical necessity defense is recognized across all of these jurisdictions.

A useful method of evaluating the many diverse necessity statutes is to compare some of their selected elements to those of the Model Penal Code.¹²³ Virtually every necessity statute, including the Model Penal Code, can be subdivided into three main components: the triggering conditions; the necessity requirement; and the proportionality requirement.¹²⁴ These components will be used as a framework for comparison.

¹¹⁷ Browning v. State, 244 Ala. 251, 257, 13 S.2d 51, 56 (1943). *But cf.* Butterfield v. Texas, 317 S.W.2d 943 (Tex. Crim. 1958) (drunk driving not excused even though seriously injured person has no other way to get to hospital).

¹¹⁸ State v. Wray, 72 N.E. 253 (1885); Commonwealth v. Patterson, 16 Wkly. Notes Cas. 193 (Pa. 1885).

¹¹⁹ State v. Johnson, 71 N.H. 552, 53 A. 1021 (1902). More recently, judicial acceptance of the necessity defense without supporting statutory authority has occurred in at least three additional states. See State v. Warshaw, 138 Vt. 22, 410 A.2d 1000 (1979); People v. Patrick, 541 P.2d 320 (Colo. Ct. App. 1975); People v. Hacquand, 64 Mich. App. 331, 236 N.W.2d 72 (1975).

¹²⁰ Ala. Code § 13A-3-29 (1982) (repealed) (necessity); Alaska Stat. § 11.81.320 (Cum. Supp. 1982); Ark. Stat. Ann. § 41-504 (1977) (justification; choice of evils); Colo. Rev. Stat. § 18-1-702 (1978) (choice of evils); Ga. Code Ann. § 16-3-20(6) (Michie 1982) (justifications that stand on the same footing of reason and justice of those enumerated are recognized); Hawaii Rev. Stat. § 703-302 (1976) (choice of evils); Ill. Ann. Stat. ch. 38, para. 7-13 (Smith-Hurd 1972) (necessity); Ky. Rev. Stat. § 503.030 (1975) (choice of evils); Me. Rev. Stat. Ann. tit. 17-1, § 103 (1983) (competing harms); Mich.2d Proposed Rev. § 605 (1979); Mo. Ann. Stat. § 563-026 (Vernon 1979) (justification in general); Neb. Rev. Stat. § 28-1407 (1979) (choice of evils); N.H. Rev. Stat. Ann. § 627:3 (1974) (competing harms); N.J. Stat. Ann. § 2C:3-2 (West 1982) (necessity and other justification in general); N.Y. Penal Law § 35.05 (McKinney 1975) (justification in general); Or. Rev. Stat. § 161.200 (1981) (choice of evils); 18 Pa. Cons. Stat. Ann. § 503 (Purdon 1983) (justification in general); Tex. Penal Code Ann. tit. 2, § 9.22 (Vernon 1974) (necessity); Wis. Stat. Ann. § 939.47 (West 1982) (necessity).

¹²¹ Am. Samoa Code Ann. § 46.3304 (1981) (justification in general; choice of evils); Guam Crim. & Corr. Code § 7.80 (1977); P.R. Laws Ann. tit. 33, § 3096 (Crim. Supp. 1961) (state of necessity).

¹²² Model Penal Code § 3.02.

¹²³ *Id.*

¹²⁴ For a thorough discussion of these components, see 2 P. Robinson, *supra* note 1, at 45-68.

As to the first component, the Model Penal Code's necessity defense does not explicitly assert any triggering conditions.¹²⁵ The implicit triggering conditions should be interpreted to consist of "any legally-protected interest which is unjustifiably threatened."¹²⁶ Some authorities would unwisely limit the triggering conditions to natural forces.¹²⁷ Others advocate that the concept of "avoiding evil" should also be expressed in the positive form of "furthering legally protected interests."¹²⁸ For the reasons noted here, the military should adopt the Model Penal Code's implicit triggering condition.

The second requirement of the necessity defense—necessity—has two conceptual elements: time and means.¹²⁹ These elements are generally understood to mean that the necessity defense is not satisfied

¹²⁵ See Model Penal Code § 3.02.

¹²⁶ See 2 P. Robinson, *supra* note 1, at 46-49. Professor Robinson explains that legally protected interests are not restricted to those interests given express sanction in the law. Rather, the term should be interpreted broadly to include all interests that society is willing to recognize and that are not specifically denied recognition by the legal system. *Id.* at 47. An accused's desire to see his dying mother thus might be included as a proper triggering condition, even though this desire is not expressly recognized by law. The Model Penal Code's use of the terms "harm or evil" seems to comport with Professor Robinson's characterization of "unjustified threats."

Moreover, the threatened consequences need only be unjustified and not necessarily unlawful in order to trigger the necessity defense. Professor Robinson illustrates this concept with the example of a legally insane kidnapper compelling an accused to violate the speed limit to save the threatened life of the kidnapped victim. *Id.* at 48. Although the triggering event would not technically be unlawful, it nonetheless would be sufficient to implicate the necessity defense. This interpretation should likewise be applied to the necessity provision in the Model Penal Code. See Model Penal Code § 302.

¹²⁷ See, e.g., *Cleveland v. Anchorage*, 631 P.2d 1073 (Alaska 1981) (the necessity defense is not available to an anti-abortion demonstrator because of the natural forces requirement); Wis. Stat. Ann. § 939.47 (West 1982) (triggering condition is the "pressure of natural physical forces"); W. LaFave & A. Scott, *supra* note 2, at 381; see also *People v. Cater*, 78 Ill. App.3d 983, 398 N.E.2d 28 (1979), *appeal dism'd*, 449 U.S. 802 (1980) (coercive power has traditionally arisen from nature in a necessity defense). The Model Penal Code has implicitly rejected this distinction, Model Penal Code § 209(4), as has virtually every state jurisdiction. Professor Robinson observes that this distinction "probably results from the historical accident that most lesser evils [i.e., necessity] cases have in fact involved forces of nature, and most duress cases have arisen from incidents involving human coercion." 2 P. Robinson, *supra* note 1, at 55. Such a distinction, from whatever origin, would confuse the fundamental underpinnings for necessity and duress—justification and excuse, respectively. See *supra* note 73. Indeed, although most of the earlier cited military decisions concern situations where the threatened harm emanated in some sense from a human source, see *supra* notes 85-87, 98, an analysis based on necessity rather than duress is appropriate in those cases.

¹²⁸ Professor Robinson argues that the necessity defense should also be triggered by an opportunity to further a legally protected interest. 2 P. Robinson, *supra* note 1, at 49. This is not an additional condition, but rather is simply a restatement of the "avoidance of evils" condition in positive terms. Because cases uniformly present the necessity issue in terms of the negative proposition of "avoiding evils," the express statement of this condition in the affirmative, although accurate, is unnecessary and possibly confusing.

¹²⁹ 2 P. Robinson, *supra* note 1, at 49.

"if a response is not yet necessary, or if a response is needed but a less drastic alternative is available and would suffice."¹³⁰ The Model Penal Code's necessity defense is silent as to the temporal element.¹³¹ As to the means, the Model Penal Code specifies only that the actor reasonably believes that the means employed are necessary.¹³²

The temporal element of the necessity requirement has several statutory variations. For example, a dozen state statutes require that the threat of harm must be "imminent" for a necessity defense.¹³³ This requirement apparently reflects the legislative presumption that unless the threat is imminent, the nominally unlawful act is not yet necessary.¹³⁴ Several military cases, borrowing from the *Manual's* requirements for duress,¹³⁵ have imposed a similar requirement for imminence in cases raising the necessity defense.¹³⁶ The presumption that the threat must be imminent in order to trigger necessity is not, however, always valid.¹³⁷ Moreover, as the actor is already restricted to engaging in conduct which is necessary to avoid an evil or harm,

¹³⁰Id.

¹³¹See Model Penal Code § 3.02.

¹³²See *id.* Professor Robinson concludes that the term "necessary" implicitly includes the temporal element. 2 P. Robinson, *supra* note 1, at 49.

¹³³Ala. Code § 13-A-3-29(1) (1982) (repealed); Ark. Stat. Ann. § 41-504(1)(a) (1977); Colo. Rev. Stat. § 18-1-702(1) (1978); Del. Code Ann. tit. 11, § 463 (1979); Hawaii Rev. Stat. § 703-302(1) (1976); Ky. Rev. Stat. § 503.030(1) (1975); Me. Rev. Stat. Ann. tit. 17-A, § 103(1) (1983); Mo. Ann. Stat. § 563.026(1) (Vernon 1979); N.Y. Penal Code § 35.05(2) (McKinney 1975); Or. Rev. Stat. § 161.200(1)(a) (1981); Tex. Penal Code Ann. tit. 2, § 9.22(1) (Vernon 1974); Wis. Stat. Ann. § 939.47 (West 1982).

¹³⁴2 P. Robinson, *supra* note 1, at 56.

¹³⁵See R.C.M. 916(h); MCM, 1969, para. 216f. Note, however, that the military courts have often substituted a sliding scale analysis for the strict triggering requirements of the duress defense so as to satisfy the different requirements of the necessity defense. See, e.g., *United States v. Brookman*, 7 C.M.A. 729, 23 C.M.R. 193 (1957); *United States v. Roberts*, 14 M.J. 671 (N.M.C.M.R. 1982), *decision adopted in companion case*, 15 M.J. 106 (C.M.A. 1983). The express adoption of a necessity defense would obviate the need for this judicial expediency and thus preserve the integrity of the defense of duress.

¹³⁶See, e.g., *United States v. Fleming*, 19 C.M.R. at 450 (board approves of necessity instruction which requires that the actor have a "well-grounded apprehension of immediate and impending death or of immediate, serious, bodily harm").

¹³⁷See 2 P. Robinson, *supra* note 1, at 56-57. For an example of a case with arguably unjust results because of the need for an "imminent" threat, see *State v. Green*, 470 S.W.2d 565, 568 (Mo. 1971), *cert. denied*, 405 U.S. 1073 (1972) (prisoner escaped based on fellow inmates' announced intent to enter the defendant's cell at a specific future time and kill him; court found escape before the appointed time was not justified by necessity because the threat was neither present nor impending, regardless of actions by prison authorities). See also *B. Cardozo*, *supra* note 54, at 113 (in support of the court's decision in *Regina v. Dudley and Stephens*, [1884-85] 14 Q.B.D. 273, Cardozo implied that killing the cabin boy was not justified by necessity as the stranded sailors could have held out a moment longer).

"the imminence requirement is an inappropriate and unnecessary additional limitation."¹³⁸

Some states require an "emergency" to justify otherwise unlawful conduct.¹³⁹ This requirement "seems to reflect the view that the actor merits a defense only if he is faced with a situation so pressing that it leaves no time for contemplation."¹⁴⁰ This rationale misses the point. Because the actor's conduct enures to society's net benefit, a carefully considered judgment to engage in the conduct should be as lawful as a reflexive reaction leading to the same conduct.¹⁴¹

As to the means element of the necessity requirement, the Wisconsin statute imposes the additional restriction that the actor's conduct can be the "only means" of avoiding the threatened harm.¹⁴² A literal application of this element would lead to absurd results.¹⁴³ This language would probably be interpreted to mean the "least drastic means," and thus adds nothing to the necessity requirement.

For the reasons just discussed, the necessity component of the proposed defense in the military should be stated as follows: "The necessity component is not satisfied if the response is not yet necessary,

¹³⁸2 P. Robinson, *supra* note 1, at 57. Several state necessity statutes impose a related immediacy requirement. See, e.g., Ala. Code § 13A-3-29(1) (1982) (repealed); Ark. Stat. Ann. § 41-504(1)(a) (1977); Colo. Rev. Stat. § 18-1-702(1) (1978); Del. Code Ann. tit. 11, § 463 (1979); Hawaii Rev. Stat. § 703-302(1) (1976); Ky. Rev. Stat. § 503.030(1) (1975); Me. Rev. Stat. Ann. tit. 17-A, § 103(1) (1983); Mich.2d Proposed Rev. § 605(1) (1979); N.Y. Penal Law § 35.05(2) (McKinney 1975); Or. Rev. Stat. § 161.200(1)(a) (1981); Tex. Penal Code Ann. tit. 2, § 9.22(1) (Vernon 1974); Wis. Stat. Ann. § 939.47 (West 1982); see also Guam Crim. & Corr. Code § 7.80 (1977); P.R. Laws Ann. tit. 33, § 3096 (Cum. Supp. 1981). The same requirement has occasionally been imposed in the military by case law. See, e.g., United States v. Fleming, 19 C.M.R. at 450. The reasons which counsel against an additional requirement of imminence apply with equal force to a requirement for immediacy. Indeed, although the Model Penal Code requires "immediacy" to justify the use of force for self-defense, the force need only be "necessary" for the defense of lesser evils. Compare Model Penal Code § 3.04 (use of force in self-protection) with Model Penal Code § 3.02 (choice of evils).

¹³⁹Ala. Code § 13A-3-29(1) (1982) (repealed); Ark. Stat. Ann. § 41-504(1)(a) (1977); Colo. Rev. Stat. § 18-1-702(1) (1978); Del. Code Ann. tit. 11, § 463 (1979); Mo. Ann. Stat. § 563.026(1) (Vernon 1979); N.Y. Penal Law § 35.05 (McKinney 1975); Or. Rev. Stat. § 161.200(1)(a) (1981).

¹⁴⁰2 P. Robinson, *supra* note 1, at 57.

¹⁴¹For the contrary argument in favor of specific temporal requirements, see G. Fletcher, *Rethinking Criminal Law* 795 (1978).

¹⁴²Wis. Stat. Ann. § 939.47 (West 1982).

¹⁴³For example, suppose an assailant threatens to drive a truck into a school yard and strike a group of children who are playing there. A person would not be justified in damaging the assailant's truck so that it could not move if the person had available the alternate means of shooting the assailant. The person would likewise not be justified in shooting the assailant if the person could have destroyed the truck. Taken to its logical extreme, necessity could never be a defense where alternate means of avoiding a future harm are available.

or if a response is needed but a less drastic alternative is available and would suffice." Further modifications requiring immediacy, imminence, an emergency, or an alternative means would be either surpluseage or unduly restrictive.

The third requirement of the necessity defense—proportionality—contemplates a balancing of the harm sought to be inflicted and the harm which is potentially threatened. The Model Penal Code requires only that a net benefit be achieved, i.e., "the harm sought to be avoided is greater than that sought to be prevented by the law defining the offense charged."¹⁴⁴

The Model Penal Code explicitly recognizes that the community's balance of interests, as routinely reflected by the legislative process, have supremacy over any contrary balance struck by an individual.¹⁴⁵ Typically the fact finder is called upon to represent the community's views.¹⁴⁶ Several statutes explicitly provide for this limitation,¹⁴⁷ while some jurisdictions impose this requirement by case law.¹⁴⁸

This rule of supremacy is reflected in the numerous court decisions refusing to justify prison escapes because of unhealthy or dangerous

¹⁴⁴Model Penal Code § 302. Professor Robinson criticizes this requirement, preferring instead that the actual harm inflicted and avoided be balanced. 2 P. Robinson, *supra* note 1, at 60-61. He argues that balancing of actual harms is less vague and more fair than the Model Penal Code's provision. *Id.* This alternative formulation, however, is not preferable as it would improperly reward a person who generates a windfall public benefit for an otherwise illegal act. For example, a person could justify seriously injuring another to prevent him from unlawfully picking flowers, provided the person later discovered that the wounded man was on his way to murder someone. Under the Model Penal Code provision, the defense of necessity would not justify this act, as the harm sought to be prevented was trivial as compared to the harm inflicted. This result is consistent with the principles underlying justification defenses. *But cf.* R.C.M. 916(e)(5) (for defense of another, the honest and reasonable intent of the actor is irrelevant). For a full discussion of issues raised by the *Manual's* provision for defense of another, see Byler, *Defense of Another, Guilt Without Fault?*, *The Army Lawyer*, June 1980, at 6.

¹⁴⁵The necessity defense is not available whenever "a legislative purpose to exclude the justification" plainly appears. Model Penal Code § 302(1)(c). Such an exclusion can be found at trial by the fact finder, *infra* note 146, or where the legislature has intended to remove the defense by providing an all-inclusive list of statutory exceptions. Model Penal Code § 3.02(1)(b) (The necessity defense is not available when the "law defining the offense provides exceptions or defenses dealing with the specific situation involved."). For example, one court has held that by explicitly authorizing physicians to bring liquor into church for medicinal purposes, the legislature intended to preclude laymen from doing so. *Bice v. State*, 109 Ga. 117, 34 S.E. 202 (1899).

¹⁴⁶"The balancing of evils cannot, of course, be committed merely to the private judgment of the actor; it is an issue for determination at trial." Model Penal Code § 3.02, Comment 5 (Tent. Draft No. 8, 1959).

¹⁴⁷Ala. Code § 13A-3-29(4) (1982) (repealed); Hawaii Rev. Stat. § 703-302(1)(c) (1976); Neb. Rev. Stat. § 28-1407(1)(c) (1979); N.J. Stat. Ann. § 2c:3-2(a) (West 1982); 18 Pa. Cons. Stat. Ann. § 503(a)(3) (Purdon 1983); Tex. Penal Code Ann. tit. 2, § 9.22(3) (Vernon 1974); Am. Samoa Code Ann. § 46.3304(a)(3) (1981).

¹⁴⁸See, e.g., *United States v. Moylan*, 417 F.2d 1002, 1008 (4th Cir. 1969).

conditions¹⁴⁹ or the destruction of Selective Service records for the purported purpose of saving lives in Viet Nam.¹⁵⁰ Similarly, an individual's belief in the value of laetrile will not justify his act of smuggling it into the country contrary to a ban imposed by a government agency.¹⁵¹

The same supremacy rationale can be applied to support certain military court decisions where necessity was arguably raised. As in the civilian cases, military prisoners cannot justify escaping from confinement absent extraordinary circumstances.¹⁵² A lawful order sending a soldier into a combat zone cannot excuse criminal behavior by the soldier because he fears combat.¹⁵³ Likewise, the fear of genetic damage because of exposure to radiation does not justify a sailor's refusal to perform assigned duties in a reactor compartment of a nuclear submarine.¹⁵⁴ In each case, the individual's personal balancing of evils, no matter how sincere, must be subordinated to the authoritative balance struck by the relevant community. This principle assumes added significance in the military context, where individual rights often are strictly construed.¹⁵⁵

¹⁴⁹ See, e.g., *People v. McKnight*, 628 P.2d 628 (Colo. Ct. App. 1981); *State v. Palmer*, 45 Del. 308, 310, 72 A.2d 442, 444 (1950); *People v. Whipple*, 100 Cal. App. 261, 265, 279 P. 1008, 1010 (1929). See generally Comment, *supra* note 7, at 433-34. Professor Robinson summarizes the rationale applied in the prison escape cases as follows:

Undoubtedly the prisoner sincerely and fervently believes that his escape is justified, but the legislators were presumably aware of the difficult prison conditions when they enacted the escape laws, as was the sentencing court when it imposed his sentence. The legislators apparently concluded that the societal evil of potential prison violence was more tolerable than the public fear and institutional disorder that would result from allowing escapes from such situations.

² P. Robinson, *supra* note 1, at 51.

¹⁵⁰ *United States v. Chase*, 468 F.2d 141 (7th Cir. 1972); *United States v. Cullen*, 454 F.2d 386 (7th Cir. 1971); see also *United States v. Dougherty*, 473 F.2d 1113 (D.C. Cir. 1972); *United States v. Glick*, 463 F.2d 491 (2d Cir. 1972); *United States v. Turchick*, 451 F.2d 333 (8th Cir. 1971); *United States v. Eberhardt*, 417 F.2d 1009 (4th Cir. 1969).

¹⁵¹ See, e.g., *United States v. Richardson*, 588 F.2d 1235 (9th Cir. 1978), cert. denied, 440 U.S. 947 (1979).

¹⁵² Compare *United States v. Peirce*, 42 C.M.R. 390 (A.C.M.R. 1970) (race riots and mistreatment of prisoners by guards do not justify escape from the stockade) with *United States v. Blair*, 16 C.M.A. 257, 36 C.M.R. 413 (1966) (prior assault on accused by prison guard raised the issue of justification for the escape). Cf. *Woodrnick v. Divich*, 24 M.J. 147 (C.M.A. 1987) (dropping out of Reserve Officer Training Corps classes and failing to report for duty not justified by voidable enlistment). See generally *supra* note 149.

¹⁵³ *United States v. Figueroa*, 39 C.M.R. 494 (A.B.R. 1968).

¹⁵⁴ *United States v. Talty*, 17 M.J. 1127 (N.M.C.M.R. 1984).

¹⁵⁵ See generally *Alley, The Overseas Commander's Power to Regulate Private Life*, 37 Mil. L. Rev. 57 (1967); *Pfau & Mihizer, The Military Death Penalty and the Constitution: There is Life After Furman*, 97 Mil. L. Rev. 35, 55-56 (1982).

The principle statutory variations of the proportionality requirement are three-fold. First, some states require that the threatened harm must "clearly" outweigh the harm contemplated by the statute.¹⁵⁶ This added restriction is unwise, as the law should not discourage the realization of a small net benefit while, at the same time, encouraging greater benefits. In addition to this substantive concern, this modification creates the need for unnecessary line drawing based upon a confusing standard.¹⁵⁷

Second, some states require threats of a certain seriousness. Eight jurisdictions permit the necessity defense only when personal injury is threatened.¹⁵⁸ This limitation "suggests a legislative determination that threat of harm other than personal injury, e.g., property damage, would always be outweighed by the evil of violating the criminal statute."¹⁵⁹ This premise clearly is false. For example, would society truly desire that a person not steal a bucket of water to prevent an unoccupied house from burning to the ground?

The Wisconsin statute is especially noteworthy, as it restrictively limits recognized threats to those involving "imminent public disaster or imminent death, or great bodily harm."¹⁶⁰ This substantially tracks the military decisions which transpose a duress rationale upon situations raising the doctrine of necessity.¹⁶¹ This restriction confuses excuse with justification and thus is inapposite to the necessity defense.¹⁶²

Third, some states restrictively apply the necessity defense so that it is barred or modified with respect to certain serious crimes.¹⁶³ These

¹⁵⁶ Ala. Code § 13A-3-29(2) (1982) (repealed); Colo. Rev. Stat. § 18-1-702(1) (1978); Del. Code Ann. tit. 11, § 463 (1979); N.Y. Penal Law § 35.05(2) (McKinney 1975); Or. Rev. Stat. § 161.200 (1981); Tex. Penal Code Ann. tit. 2, § 9.22(2) (Vernon 1974).

¹⁵⁷ If the real concern underlying this statutory restriction is that the fact finder should be especially careful in its review of the accused's actions, this can be addressed by artfully drafted jury instructions.

¹⁵⁸ Ala. Code § 13A-3-29(1) (1982) (repealed); Hawaii Rev. Stat. § 702-302(1) (1976); Me. Rev. Stat. Ann. tit. 17-A, § 103(1) (1983); Neb. Rev. Stat. § 28-1407(1) (1979); N.H. Rev. Stat. Ann. § 627:3(5) (1974); 18 Pa. Cons. Stat. Ann. § 503(a) (Purdon 1983); Am. Samoa Code Ann. § 46.3304 (1981); Guam Crim. & Corr. Code § 7.80 (1977).

¹⁵⁹ 2 P. Robinson, *supra* note 1, at 62.

¹⁶⁰ Wis. Stat. Ann. § 939.47 (West 1982).

¹⁶¹ See *supra* notes 78, 135.

¹⁶² See *supra* note 73.

¹⁶³ Iowa bars necessity as a defense for the use of force by an escaping prisoner upon an innocent person, no matter how slight the touching or why the prisoner escaped. *See State v. Rease*, 272 N.W.2d 863 (Iowa 1978). Kentucky, Missouri, and Wisconsin bar or limit the necessity defense with respect to certain serious crimes. Ky. Rev. Stat. § 503.030(1) (1975) (necessity not available for intentional homicide); Mo. Ann. Stat. § 563.026(1) (Vernon 1979) (necessity not available for Class A felonies); Wis. Stat. Ann. §§ 939.47, 940.05(4) (West 1982) (necessity only mitigates murder to manslaughter).

statutory limitations apparently reflect a legislative policy determination that the proportionality requirement can never be met in certain extreme cases.¹⁶⁴ This premise would likewise prove faulty depending on the facts.¹⁶⁵ The Commentary to the Model Penal Code rejects all these limitations, even as they apply to the taking of innocent life.¹⁶⁶

Accordingly, the military should adopt a simple proportionality component for the necessity in the following terms: "The harm sought to be avoided is greater than that sought to be prevented by the law defining the offense charged." Further modifications requiring that the threatened harm "clearly" outweigh the harm sought to be prevented, that the threatened harm be of a certain seriousness, or that the necessity defense be barred as to certain serious crimes are unduly restrictive.

V. A PROPOSED NECESSITY DEFENSE FOR THE MILITARY

The necessity defense "most clearly reflects the principle of all justification defenses."¹⁶⁷ Its common law origins are impressive.¹⁶⁸ Punishing actions justified by necessity would be contrary to the underlying purposes for criminal sanctions.¹⁶⁹ A majority of civilian jurisdictions currently recognize the necessity defense.¹⁷⁰ The doctrine of necessity has been traditionally, albeit often implicitly, applied by military authorities in various ways.¹⁷¹

¹⁶⁴ 2 P. Robinson, *supra* note 1, at 63; cf. R.C.M. 916(1)(1) discussion ("Voluntary intoxication may reduce premeditated murder to unpremeditated murder, but it will not reduce murder to manslaughter or any other lesser offense.").

¹⁶⁵ For example, a prisoner in an Iowa jail who bumps a visitor to escape being murdered would be guilty of assault, and a man in Missouri who commits a Class A felony to save 1000 lives is nonetheless a felon. The Wisconsin and Kentucky statutes raise the larger philosophical question central to the lifeboat cases: can one innocent life be intentionally taken to save many? For an excellent discussion of this issue, see 2 P. Robinson, *supra* note 1, at 64-68.

¹⁶⁶ "The life of every individual must be assumed . . . to be of equal value and the numerical preponderance in the lives saved compared to those sacrificed surely establishes an ethical and legal justification for the act." Model Penal Code § 3.02, Comment 8 (Tent. Draft No. 8, 1958).

¹⁶⁷ 1 P. Robinson, *supra* note 1, at 83.

¹⁶⁸ See generally *supra* notes 19-59 and accompanying text.

¹⁶⁹ The accepted purposes of punishment are deterrence, rehabilitation, and retribution. See generally Pfau & Milhizer, *supra* note 155, at 45 n.66 and the cases cited therein. The punishment of one who nominally violates the law because of legitimate necessity does not advance any of these purposes. Quite to the contrary, the conduct at issue should be encouraged as it ensures to society's net benefit. See generally Hitchler, *supra* note 58.

¹⁷⁰ See generally *supra* notes 109-66 and accompanying text.

¹⁷¹ See generally *supra* notes 73-103 and accompanying text. For a discussion of the related doctrine of military necessity as it applies to the law of war, see 10 Whiteman, Digest of International Law 298-317 (1968) (the doctrine of military necessity is a long held and basic norm).

For all these reasons, the doctrine should be explicitly recognized as a special defense in military jurisprudence. Because the Model Penal Code's codification of the defense is preferable to the other adopted and proposed statutory alternatives,¹⁷² it should be incorporated as part of the military law. Thus, the defense would be stated in the following terms:

When a legally protected interest is unjustifiably threatened, and a response is necessary and no less drastic alternative response is available and sufficient, the response may be justified by the defense of necessity provided that the harm sought to be avoided is greater than the harm sought to be prevented by the law defining the offense charged.

The defense can be incorporated by two principle methods. First, a new subparagraph to the pertinent provision of the *Manual*¹⁷³ could set forth the defense.¹⁷⁴ This change need not be based on prior legislative authority.¹⁷⁵

The second and more likely alternative is for the defense to be adopted by judicial decision.¹⁷⁶ For example, Chief Judge Everett recently urged the adoption of the voluntary abandonment defense in the military.¹⁷⁷ The Chief Judge noted that the defense is set forth as part of the Model Penal Code,¹⁷⁸ has been recognized in various federal cases,¹⁷⁹ and is supported by commentators.¹⁸⁰ He also observed that current military authority did not expressly prohibit the defense.¹⁸¹ Chief Judge Everett additionally considered Congress's

¹⁷² See *supra* notes 125-66 and accompanying text.

¹⁷³ MCM, 1984.

¹⁷⁴ The logical place for the incorporation of such a change would be as a new subparagraph to R.C.M. 916.

¹⁷⁵ See Uniform Code of Military Justice art. 36(a), 10 U.S.C. § 836(a) (1981) [hereinafter UCMJ]. But cf. R.C.M. 916(k) analysis (the change to lack of mental responsibility defense in the *Manual* merely implements a change to the UCMJ).

¹⁷⁶ A third method of incorporation is possible. The President could issue an executive order recognizing the necessity defense as part of current military law, based upon the *sub silentio* recognition it has presently attained. This would probably be the least preferred method of incorporation, however, as the currently accepted application of the defense in military law is unclear.

¹⁷⁷ See *United States v. Byrd*, 24 M.J. 286 (C.M.A. 1987). Judge Cox did not join in this portion of the opinion, based upon his reservations against making substantive law on a guilty plea record. *Id.* at 293. Judge Sullivan did not participate. *Id.*

¹⁷⁸ Model Penal Code § 5.01(4) (Proposed Official Draft 1962).

¹⁷⁹ See *United States v. Byrd*, 24 M.J. at 291 n.1, and the cases cited therein.

¹⁸⁰ *Id.* at 290-91.

¹⁸¹ *Id.* at 288-90. In this regard, Chief Judge Everett noted that military law recognized a doctrine similar to the proposed abandonment defense. *Id.* at 292. Similarly, a defense of justification, a modified duress defense, and a roughly analogous doctrine of inability, as sometimes applied, have all been recognized by the military. For an

preference that military justice be consistent with "the principles of law . . . generally recognized in the trial of criminal cases in the United States district courts."¹⁸² As discussed earlier, all of these reasons in support of adopting the voluntary abandonment defense apply with at least equal force to the necessity defense.

These two primary methods of incorporating changes to special defenses in military practice—as an addition to the *Manual*¹⁸³ or by judicial decision—have traditionally complemented each other. For example, provisions in the *Manual*¹⁸⁴ have changed over time to reflect the decisions of appellate military courts.¹⁸⁵ The converse has also occurred, as the *Manual* has overturned or modified case law relating to affirmative defenses.¹⁸⁶

Regardless of which alternative serves as the basis for implementing the change, the method of raising and proving the defense at trial would be standard. The burden of production, i.e., raising the defense, would be on the accused.¹⁸⁷ Once the accused has produced some evidence raising the defense, the government would then have the burden of proving beyond a reasonable doubt that the defense did not exist.¹⁸⁸ This allocation of the burdens of production and persuasion are consistent with special defenses under military law and agree with civilian practice relating to the necessity defense.¹⁸⁹

The accused usually would be permitted to raise other defenses in addition to necessity.¹⁹⁰ As a rule, the defenses need not be consist-

example of judicial recognition of the inability defense, see *United States v. McGann*, NCM 79-1255 (N.C.M.R. 25 Feb. 1980) (unpub.), *pet. denied*, 9 M.J. 133 (C.M.A. 1980) (violation of order to perform relatively unimportant duty because of accused's inability due to physical needs was excused or justified).

¹⁸²UCMJ art. 36, construed in *United States v. Byrd*, 24 M.J. at 292.

¹⁸³MCM, 1984.

¹⁸⁴*Id.*

¹⁸⁵For example, the change reflected in R.C.M. 916(h), which allows the defense of duress for the protection of innocent third persons, is based on the decision of the United States Court of Military Appeals in *United States v. Jemmings*, 1 M.J. 414 (C.M.A. 1976). See R.C.M. 916(h) analysis; see also R.C.M. 916(e)(2) (*Manual* provision for self-defense in certain aggravated assault cases changed consistent with the decision in *United States v. Acosta-Vergas*, 13 C.M.A. 388, 32 C.M.R. 388 (1962)).

¹⁸⁶See, e.g., R.C.M. 916(b)(k) (lack of mental responsibility); cf. R.C.M. 920(e)(2) (February 1986 amendment, pertaining to waiver of the bar of the statute of limitations if the accused desires instructions on any lesser included offense otherwise barred, overturns the holdings in *United States v. Wiedemann*, 16 C.M.A. 356, 36 C.M.R. 521 (1966) and *United States v. Cooper*, 16 C.M.A. 390, 37 C.M.R. 10 (1966)). Note that the military appellate courts have not yet reviewed either of these changes.

¹⁸⁷See R.C.M. 916(b); see also *United States v. Cuffee*, 10 M.J. 381 (C.M.A. 1981).

¹⁸⁸See R.C.M. 916(b); see also *United States v. Hurst*, 49 C.M.R. 681 (A.C.M.R. 1974).

¹⁸⁹See 2 P. Robinson, *supra* note 1, at 47.

¹⁹⁰See R.C.M. 916(b) discussion.

ent.¹⁹¹ In any event, no problem of inconsistent defenses could arise in cases involving necessity and other justification defenses.¹⁹²

As necessity would be a special defense under military law, the military judge would be required on findings to instruct upon it.¹⁹³ The instructions would focus on the three components of the defense: the triggering conditions, the necessity requirement, and the proportionality requirement.¹⁹⁴ A model necessity instruction would probably be added to the *Military Judges' Benchbook*.¹⁹⁵

VI. THE CONSEQUENCES OF FAILING TO ADOPT THE PROPOSED NECESSITY DEFENSE

Most arguments against adopting the necessity defense can be grouped into two broad categories: generic concerns about the "codification" of all defenses, and concerns specific to the necessity defense. For the reasons discussed below, neither class of contentions warrants rejection of the defense.

¹⁹¹ See, e.g., United States v. Garcia, 1 M.J. 26 (C.M.A. 1975) (both alibi and entrapment may be raised); United States v. Lincoln, 17 C.M.A. 330, 38 C.M.R. 128 (1967) (both accident and self-defense may be raised); United States v. Snyder, 6 C.M.A. 692, 21 C.M.R. 14 (1956) (both heat of passion and self-defense may be raised). But see United States v. Bellamy, 47 C.M.R. 319 (A.C.M.R.), *pet. denied*, 48 C.M.R. 999 (C.M.A. 1973) (both self-defense and denial may not be raised).

¹⁹² Besides necessity, the justification defenses include self-defense, defense of others, defense of property, and defense of habitation or premises. See generally 2 P. Robinson, *supra* note 1, at 69-112.

¹⁹³ See R.C.M. 920(e)(3). Note that this rule requires that the military judge instruct *sua sponte* only upon the special defenses listed in R.C.M. 916. Assuming the necessity defense was incorporated into military practice by a court decision rather than a change to the *Manual*, the decision incorporating necessity presumably would likewise require that the judge instruct *sua sponte* upon the defense when raised.

¹⁹⁴ See 2 P. Robinson, *supra* note 1, at 45-68.

¹⁹⁵ Dep't of Army, Pam. 27-9, *Military Judges' Benchbook* (May 1982). Chapter 5 concerns special and other defenses. The model instruction for the necessity defense would be substantially as follows:

The evidence has raised the issue of necessity in relation to the offense(s) of (_____.) (There has been (testimony) (evidence) that (*summarize evidence and contentions of the parties*).) Necessity is a complete defense to the offense(s) of (_____.) In general terms, necessity may justify a violation of the law in order to prevent or avoid a greater harm. For necessity to exist, you must first find that the accused violated the law and committed the offense(s) of (_____.) Assuming you find the accused violated the law, necessity will justify the violation only if the act was done because the accused honestly and reasonably believed that it was necessary in order to avoid a greater evil or harm. The test here is whether, under the same facts and circumstances present in this case, an ordinary and prudent adult person faced with the same facts would believe that it was necessary to act contrary to the law in order to avoid a greater evil or harm. Second, the accused must actually

The generic arguments assume that defenses, by their nature, defy explicit exposition. Professor Robinson summarizes these arguments as follows: "Defenses, it might be argued, are the embodiment of such complex notions of fairness and morality, tempered by the demands of utility and efficiency, that they are too complex and perhaps too illogical to be reduced to an integrated, comprehensive, and internally consistent system of exculpation."¹⁹⁶ Academicians respond to this criticism by noting that other complex areas of the law have been explicitly defined and organized,¹⁹⁷ and that the behavioral sciences have advanced so that these imprecise moral concepts are in some respects quantifiable.¹⁹⁸

With regard to incorporating the necessity defense into military practice, the above dialogue both says too much and misses the point. The military has already established a system of special defenses.¹⁹⁹ Moreover, although the relationship of the necessity defense to other special defenses obviously should be considered, the decision whether to incorporate the defense of necessity into military law ought to be judged on its own merits.

The most telling arguments against adopting the defense are more focused. Some critics have emphasized practical concerns, contending that a codification of the necessity defense would promote inconsistency and be a "potential source of unwarranted difficulty in ordinary

have believed that his action was necessary to avoid the greater evil or harm. To determine whether the accused actually believed that his action was necessary, you must look at the situation through the eyes of the accused. (*Summarize any pertinent information peculiar to this accused.*) In order for the necessity defense to apply, the interest threatened by the evil or harm must be protected by law and the threat must be unjustified. Moreover, you are instructed that if the accused's response was not yet necessary, or if the response was needed but a less drastic and sufficient alternative was readily available, the defense of necessity does not apply.

The prosecution's burden of proof to establish the guilt of the accused not only applies to the elements of the offense(s) of (_____) (and to the lesser included offense(s) of (_____)), but also to the issue of necessity. In order to find the accused guilty you must be convinced beyond a reasonable doubt that the accused did not legitimately act out of necessity.

Note that additional instructions would be required if issues involving the supremacy of society's balance or legislative preemption are raised, or if the offense is based on negligence or recklessness and the accused has negligently or recklessly created the conditions giving rise to the defense.

¹⁹⁶ 1 P. Robinson, *supra* note 1, at 69.

¹⁹⁷ See generally Wechsler, *The Challenge of a Model Penal Code*, 65 Harv. L. Rev. 1097, 1098, 1130 (1952), cited in 1 P. Robinson, *supra* note 1, at 69.

¹⁹⁸ 1 P. Robinson, *supra* note 1, at 69, citing M. Duverger, *An Introduction to Social Sciences* 225-48 (transl. M. Anderson 1964).

¹⁹⁹ See R.C.M. 916.

cases.²⁰⁰ Others focus on conceptual issues, claiming that the defense would emasculate the rule of law²⁰¹ and result in an improper delegation of legislative authority to the individual.²⁰²

Both sets of arguments fail upon closer examination. First, and contrary to the contentions of some critics, the absence of an authoritative necessity defense actually exacerbates the ordinary difficulties associated with a trial. The principles underlying the necessity defense undeniably will continue to be applied regardless of whether the defense is formally recognized. Without an established defense of necessity, however, prosecutorial discretion²⁰³ and jury nullification²⁰⁴ assume a preeminent position. An emphasis on these processes would generate numerous problems leading to inconsistent and potentially unjust results.

These problems would infect the military justice system at all stages. For example, absent an authoritative necessity defense, commanders and their legal advisors initially would be required to exercise their "prosecutorial discretion" without benefit of clear guidance.²⁰⁵ This probably would result in an inconsistent application of the defense

²⁰⁰National Commission on Reform of Federal Criminal Laws: A Proposed New Federal Criminal Code (Title 18, United States Code) § 601, comment 43 (1971).

²⁰¹See *supra* note 10; see also *State v. Whipple*, 100 Cal. App. 2d 1, 279 P. 1008 (1929).

²⁰²This argument can be summarized as follows:

Every socially justified prohibition benefits some people and harms others, yet it is within the legislative competence to make these judgments and impose uncompensated costs on some people. The legislature is empowered, in short, to pick the victims of the common good. Yet these are not the costs that we wish private individuals to impose on each other, even if the private judgment of social welfare is correct.

G. Fletcher, *supra* note 141, at 795.

²⁰³See generally Arnolds & Garland, *supra* note 4, at 298-301. Although prosecutorial discretion is necessarily broad, the Court of Military Appeals has not hesitated to restrict it in the appropriate cases. See, e.g., *United States v. Hill*, 25 M.J. 411 (C.M.A. 1988) (one who associates himself with a buyer of drugs for personal use may not be prosecuted for aiding and abetting drug distribution); *United States v. Hickson*, 22 M.J. 146 (C.M.A. 1986) (prosecution based on an unreasonable multiplication of charges is prejudicial); *United States v. Crocker*, 18 M.J. 33 (C.M.A. 1984) (military prosecutors must charge consistent with Wharton's rule).

²⁰⁴See generally Arnolds & Garland, *supra* note 4, at 296-98. Jury nullification is disfavored in military practice. See, e.g., *United States v. Mead*, 16 M.J. 250, 257 (C.M.A. 1983) (although court members have the power to disregard the military judge's instructions, they need not be advised of this power, even upon request by the accused); *United States v. Smith*, 24 M.J. 859, 861 (A.C.M.R. 1987) (jury nullification is in no way to be encouraged or condoned).

²⁰⁵See generally *United States v. Hardin*, 7 M.J. 399, 404 (C.M.A. 1979); R.C.M. 303-07, 401-07.

based upon the commander's personal judgment about the balancing of harms.²⁰⁶

Assuming charges were preferred,²⁰⁷ commanders and their legal advisors would then be left without authoritative or uniform guidance concerning which facts would be important or even admissible at the court-martial. This uncertainty would complicate the referral decision²⁰⁸ and handicap defense counsel when advising the accused.

At trial, the military judge would have to litigate witness requests,²⁰⁹ objections to evidence,²¹⁰ and requested instructions²¹¹ pertaining to necessity without firm guidance. Again, an individual judgment about the balancing of harms, this time by the military judge, would assume preeminent status.

Depending on the resolution of these and numerous other variables, the evidence relating to the necessity defense may or may not come before the fact finder. This lack of uniformity would then be further multiplied in a trial by members, depending upon whether a proper instruction on necessity, an instruction which misconstrues the defense, or no instruction at all would be given. The synergistic effect of these and other variables obviously would create inconsistency, result in injustice, and encourage jury nullification.²¹²

The broader conceptual arguments also fail. Rather than contributing to an emasculation of the law, the defense of necessity helps assure that the law is just, even in particularly tough cases. Far from causing an improper delegation of legislative authority to the individual, the necessity defense helps promote realization of the true legislative intent by enhancing enforcement of the spirit of the law,

²⁰⁶ Ironically, the preeminence of such individualized balancing is the very evil that opponents of the necessity defense seek to avoid. See *supra* notes 10, 202.

²⁰⁷ See R.C.M. 307.

²⁰⁸ See R.C.M. 601. Moreover, any pretrial investigating officer appointed in accordance with R.C.M. 405 would similarly lack guidance as to doctrine of necessity.

²⁰⁹ See generally R.C.M. 703, 905, 906(b)(7).

²¹⁰ See generally R.C.M. 103(a)(1).

²¹¹ See generally R.C.M. 801(a)(5), 920. Note that even absent explicit adoption of the necessity defense by the military appellate courts or the *Manual*, the trial defense counsel can request an instruction on necessity if raised by the evidence. Cf. *United States v. McLaurin*, 22 M.J. 310 (C.M.A. 1986) (military judge should give requested eyewitness identification instruction if raised by the evidence).

²¹² The risk of jury nullification is especially great if the accused's actions clearly benefited society although nominally violating the law, where the judge fails to instruct upon the defense of necessity or explicitly instructs that the defense does not apply. In such a case the members are left with the hobson's choice of either violating their oath and the judge's instructions or convicting the accused contrary to common sense and innate concepts of justice.

rather than a blind allegiance to its letter. The necessity defense, simply put, helps avoid the evils which its critics claim it would create.

VII. CONCLUSION

Incorporating the necessity defense as part of military law is long overdue. The defense is well established and broadly recognized. Its adoption would promote consistency and enhance justice. Of equal importance, incorporating the defense would help structure the law so that it comports with the feelings and demands of the community.²¹³ Perhaps no more compelling justification for an advancement of the law could ever be offered.

²¹³See O. Holmes, *supra* note 57, at 36.

THE CONGRESSIONAL RESPONSE TO *GOLDMAN v. WEINBERGER*

by First Lieutenant Dwight H. Sullivan*

I. INTRODUCTION

Justice Douglas once commented that "Army regulation" is "at war with the principles of the First Amendment."¹ As a result of the Supreme Court's *Goldman v. Weinberger* decision,² that war will now be fought on a new battleground. The *Goldman* decision is one of a line of Supreme Court cases insulating the military from judicial enforcement of servicemembers' constitutional rights.³ These cases, however, point to a complementary congressional responsibility to protect servicemembers' liberty interests. Congress has already confronted the same free exercise of religion question which sparked the *Goldman* case itself.⁴ Future conflicts over a variety of servicemembers' first amendment claims will likely come before Congress as well.⁵ After examining the Supreme Court's *Goldman* decision, this article will analyze subsequent congressional efforts to protect servicemembers' free exercise of religion. The article will then consider the constitutionality of the legislation that Congress adopted to grant servicemembers a limited right to wear visible religious apparel while in uniform.

II. *GOLDMAN v. WEINBERGER* A. THE CASE'S HISTORY

S. Simcha Goldman, an Air Force captain who served as a clinical psychologist, is an Orthodox Jew and an ordained rabbi.⁶ During his

*First Lieutenant Dwight H. Sullivan, USMCR. Currently assigned as Trial Counsel, 3d FSSG, Okinawa, Japan. Completed Naval Justice School Lawyer Course, 1987 (with honors). B.A., summa cum laude, University of Maryland, 1982; J.D., University of Virginia, 1986; M.A., University of Maryland, 1987. Author of *Novel Scientific Evidence's Admissibility at Courts-Martial*, The Army Lawyer, Oct. 1986, at 24; *Legal Restrictions on the Right to Use Force Against International Terrorism*, 10 ASILS Int'l L.J. 169 (1986).

¹Laird V. Tatum, 408 U.S. 1, 28 (Douglas, J., dissenting). Although Justice Douglas made this comment during a discussion of free speech rights, it seems equally applicable to free exercise rights.

²*Goldman v. Weinberger*, 475 U.S. 503 (1986).

³See *infra* note 168 and accompanying text.

⁴See *infra* notes 45-60, 84-143 and accompanying text.

⁵See *infra* note 169 and accompanying text.

⁶The facts of the case are provided at *Goldman*, 475 U.S. at 504-06; *Goldman v. Secretary of Defense*, 734 F.2d 1531, 1532-35 (D.C. Cir. 1984); *Goldman v. Secretary of Defense*, 29 Empl. Prac. Dec. (CCH) ¶ 25,539 (D.D.C. 1982); and *Goldman v. Secretary of Defense*, 530 F. Supp. 12, 13-14 (D.D.C. 1981).

first four years of active duty with the Air Force, Goldman wore a yarmulke while indoors without incident.⁷ In 1981, however, a Government counsel lodged a complaint when Goldman wore a yarmulke while testifying as a defense witness at a court-martial.⁸ The hospital's commanding officer advised Goldman that wearing a yarmulke while in uniform violated Air Force regulations;⁹ he ordered Goldman not to wear a yarmulke in uniform outside the hospital. After receiving a complaint from Goldman's lawyer, the commanding officer extended the order to forbid Goldman from wearing a yarmulke in uniform within the hospital as well. When Goldman refused to obey that order, his commanding officer issued a formal letter of reprimand, withdrew a recommendation that Goldman's active duty service be extended, and threatened to court-martial Goldman.¹⁰ Goldman then sought injunctive relief from the U.S. District Court for the District of Columbia, claiming that application of Air Force regulations to prevent him from wearing a yarmulke in uniform violated his right to free exercise of religion.

The district court granted Goldman a temporary restraining order, and later a preliminary injunction, prohibiting the Air Force from enforcing its uniform regulations to prevent Goldman from wearing

⁷The yarmulke, a small skullcap, is used to meet some Jewish men's religious requirement that the head be kept covered at all times. The Joint Service Study Group on Religious Practice noted that "some" Conservative Jewish men keep their heads covered at all times. Joint Study Group on Religious Practice, Joint Service Study on Religious Matters, at A 17 (1985) [hereinafter Joint Study]. The Study Group reported that "many" Orthodox Jewish men wear a head covering at all times, while others keep their heads covered only "when praying, studying, reciting benedictions, eating and drinking." *Id.* The Study Group found that Reform Judaism imposed no dress or appearance restrictions. *Id.* at A 18.

From 1970 to 1972, Captain Goldman had served as a Navy chaplain. He also wore a yarmulke during this period without incident. In 1973, he was admitted into the Armed Forces Health Professions Scholarship Program. Upon completing his degree in 1977, he entered active duty service with the Air Force. *Goldman*, 734 F.2d at 1532.

⁸Justice Stevens observes that "there is reason to believe that the policy of strict enforcement against Captain Goldman had a retaliatory motive." *Goldman*, 475 U.S. at 511 (Stevens, J., concurring).

⁹Air Force Reg. 35-10 § 1-6(h)(1) states, "Air Force members will wear the Air Force uniform while performing their military duties, except when authorized to wear civilian clothes on duty." Section 1-6(h)(2) states, "Headgear will not be worn . . . [w]hile indoors except by armed security personnel in the performance of their duties." See *Goldman*, 734 F.2d at 1533-34 n.1.

¹⁰The *Manual for Courts-Martial* then in effect provided: "The fact that obedience to a command would involve a violation of the religious scruples of the accused is not a defense." *Manual for Courts-Martial*, United States, 1969 (Rev. ed.), para. 169b. The current *Manual* similarly provides that "the dictates of a person's conscience, religion, or personal philosophy cannot justify or excuse the disobedience of an otherwise lawful order." *Manual for Courts-Martial*, United States, 1984, Part IV, para. 14c(2)(a)(iii).

his yarmulke while in uniform.¹¹ Following a trial on the merits, the court held that application of Air Force uniform regulations to prohibit servicemembers from wearing yarmulkes violated the first amendment's free exercise clause; the court enjoined the Air Force from applying its uniform regulations to prohibit the wearing of yarmulkes for religious reasons.¹² On appeal, a three-judge panel of the U.S. Court of Appeals for the District of Columbia Circuit reversed, holding that "the peculiar nature of the Air Force's interest in uniformity renders the strict enforcement of its regulation permissible."¹³

¹¹ *Goldman*, 530 F. Supp. at 16-17. Judge Robinson used a four-part analysis to evaluate whether a preliminary injunction should issue. This analysis considered: "(1) whether Plaintiff has demonstrated that he will ultimately prevail on the merits; (2) whether Plaintiff will suffer irreparable harm absent injunctive relief; (3) whether such relief will harm third parties; and (4) whether the public interest favors the issuance of injunctive relief pending a determination on the merits." *Id.* at 14.

The bulk of Judge Robinson's opinion was devoted to considering whether Captain Goldman was likely to ultimately prevail on the merits. Adopting the inquiry used by the Supreme Court in *Rostker v. Goldberg*, 453 U.S. 57 (1981), Judge Robinson asked whether the prohibition against wearing a yarmulke while in uniform "transgressed an explicit guarantee of individual rights." *Goldman*, 530 F. Supp. at 15 (quoting *Rostker*, 453 U.S. at 70). Citing *Thomas v. Review Bd. of Ind. Employment Sec. Div.*, 450 U.S. 707, 714-19 (1981), Judge Robinson announced, "There can be no doubt that Plaintiff's insistence on wearing a yarmulke is motivated by his religious convictions, and is therefore entitled to First Amendment protection." *Goldman*, 530 F. Supp. at 16.

Judge Robinson concluded: (1) Captain Goldman "made a substantial showing that he is likely to prevail on the merits;" (2) Captain Goldman "would in all likelihood suffer irreparable harm" if an injunction did not issue; (3) there was no showing that an injunction would harm third parties; and (4) "[t]he public interest requires protecting individuals who assert their constitutionally protected rights." *Id.* Judge Robinson therefore issued a preliminary injunction. *Id.*

¹² *Goldman*, 29 Empl. Prac. Dec. at 25,541-42. In this proceeding, Judge Robinson again relied on the *Rostker* inquiry of whether Congress or its delegate had "transgressed an explicit guarantee of individual rights." *Id.* at 25,541 (quoting *Rostker*, 453 U.S. at 70). Judge Robinson embellished the *Rostker* test by adding, "In determining whether an explicit guarantee of individual rights has been transgressed, attention must be focused on whether or not the decision occasioning the constitutional challenge was the result of a studied and supported analysis . . ." *Goldman*, 29 Empl. Prac. Dec. at 25,541. He concluded, "The decision to exclude a *bona fide* religious exception for the wearing of yarmulkes from AFR 35-10 was not the result of a studied and supported analysis." Therefore, "there was no evidence presented at trial sufficient to conclude that the military prohibition of yarmulkes in the interest of discipline overrides individuals' interests in exercising their freedom of religion." *Id.*

While his order specified only that the Air Force must allow Captain Goldman to wear a yarmulke while in uniform, Judge Robinson also noted, "Once an exception is made for male members of the Jewish faith to wear yarmulkes, members of other faiths who wish to wear skull caps must be permitted to do so." *Id.*

¹³ *Goldman*, 734 F.2d at 1532. Like the district court, the panel concluded that the Supreme Court's *Rostker* analysis provided the appropriate standard of review. Rather than focusing on whether the military had "transgressed an explicit constitutional grant of authority," *Rostker*, 453 U.S. at 70, however, the panel asked "whether the restrictions on Goldman's right to exercise his religion were authorized and justified by the

power of the military to regulate itself, giving due weight to each of the conflicting interests." *Goldman*, 734 F.2d at 1536.

The panel first concluded that the Air Force Secretary issued the regulations while exercising his validly delegated power to prescribe rules necessary to carry out his duties. *Id.* at 1538. See 10 U.S.C. § 8012(f) (1982). Once satisfied that the Air Force's uniform regulations were validly issued, the panel refused to consider their rationality. The panel reasoned that "[i]n reaching its conclusion that exceptionless uniformity is beneficial, the Air Force relies on its own experience and on reports that laxity in enforcing such regulations had contributed to lapses in discipline in other branches of the armed services." *Goldman*, 734 F.2d at 1538. Observing that this judgment "was in the area of military governance, on which [the Air Force's] expertise is high and on which judicial competence is low," the panel indicated that while "we must not abdicate our responsibility to review the constitutional challenge, we cannot lightly substitute our judgment whether a closer accommodation of religious interests would be possible given the legitimate military interests in order and obedience." *Id.* at 1539.

This deference to the military proved to be the decisive factor. Referring to the "peculiar nature of the Air Force's interest in uniformity," the panel explained: "That interest lies in the enforcement of regulations, not for the sake of the regulations themselves, but for the sake of enforcement." *Id.* at 1540. While conceding that the regulations were arbitrary, the panel explained that all uniform regulations are necessarily arbitrary. Any exceptions to such arbitrary regulations would incur "resentment from those who are compelled to adhere to the rules strictly (and whose resentment would be intensified by the arbitrariness of the rules), thereby undermining the goals of teamwork, motivation, discipline and the like." *Id.* The Air Force therefore concluded that "strict enforcement of its regulations is necessary for its military purposes." *Id.* That conclusion, held the panel, is "entitled to deference" because it is within the Air Force's expertise and outside the courts'. *Id.* The panel therefore vacated the district court's injunction.

The panel thus places itself in the anomalous position of indicating that the Air Force can constitutionally interfere with Captain Goldman's religious exercise because its regulations are arbitrary. While this argument is remarkable in itself, it is based on assumptions contradicted elsewhere in the panel's opinion. The panel contends that the regulations "are necessarily arbitrary," and are "enforced to an arbitrary cutoff point—the point of visibility." *Id.* It is departure from this arbitrary cutoff point of visibility which the court says will incur resentment. *Id.* Yet earlier in its opinion, the panel noted that "the regulations already permit certain deviations from complete visible uniformity, such as the wearing of rings and bracelets of nonuniform design, see AFR 35-10 § 1-12(b)(1)(b)." *Id.* The Air Force thus did not actually enforce a neutral visibility standard.

For critical analyses of the panel's opinion, see Note, *Goldman v. Secretary of Defense: Restricting the Religious Rights of Military Servicemembers*, 34 Am. U.L. Rev. 881, 910-18 (1985) (arguing that the panel should not have deferred to the uniform regulations because they were not congressionally mandated; the note also argued that the panel should have distinguished between military regulations which are essential to the military defense function and those which are not); Note, *The Clash Between the Free Exercise of Religion and the Military's Uniform Regulations*, 58 Temp. L.Q. 195, 208-16 (1985) [hereinafter Note, *Military's Uniform Regulations*] (arguing that in the absence of a sound factual showing or comprehensive congressional examination of the issue, the panel improperly acquiesced to the Air Force's assertion that allowing Captain Goldman to wear a yarmulke would have harmed discipline).

Following the full court's refusal to rehear en banc,¹⁴ the Supreme Court granted certiorari.¹⁵

B. THE SUPREME COURT'S DECISION

1. The Majority.

The *Goldman* case was the first time the Supreme Court considered a servicemember's free exercise claim.¹⁶ In rejecting *Goldman*'s challenge to the uniform regulations, Justice Rehnquist's majority opinion relied heavily on the military necessity doctrine.¹⁷ This doctrine, which partially insulates the armed forces from constitutional challenges, rests upon two bases. The first basis stems from judicial recognition that the military is "by necessity, a specialized society separate from civilian society. . . . To ensure that they always are capable of performing their mission promptly and reliably, the military services must insist upon a respect for duty and discipline without counterpart in civilian life."¹⁸ The Supreme Court has recognized that this need for discipline will sometimes require servicemembers to sacrifice liberties which would be constitutionally protected in civilian soci-

¹⁴ *Goldman v. Secretary of Defense*, 739 F.2d 657 (D.C. Cir. 1984). Three judges dissented from the court's refusal to rehear en banc. Joined by Judges Scalia and Ginsburg, Judge Starr's dissenting opinion accused the panel decision of "abdicat[ing] the judiciary's limited but important function in the extraordinarily delicate environment of military personnel." *Id.* at 657 (Starr, J., dissenting from denial of rehearing). Judge Starr contended, "While courts quite properly defer to military expertise, we cannot abdicate our core constitutional responsibilities simply because a case arises in a military setting." *Id.* at 658. Thus, rejecting the panel's extreme deference to the military, Judge Starr argued that the case should have been decided according to the balancing analysis used by the Supreme Court in *Wisconsin v. Yoder*, 406 U.S. 205 (1972). Judge Starr explained, "In interpreting the Free Exercise Clause, the Supreme Court has required those in authority to accommodate those who wish to exercise their religious liberties, unless the accommodation would prove unduly burdensome." Under this analysis, "[u]nless the military can offer firmer support for the counterintuitive proposition that accommodation of its dress code to deeply held religious beliefs builds more resentment than simple arbitrariness, it should not be allowed to abrogate" free exercise rights. *Goldman*, 739 F.2d at 659 (Starr, J., dissenting from denial of rehearing).

¹⁵ *Goldman v. Weinberger*, 472 U.S. 1016 (1985).

¹⁶ *Noone, Rendering Unto Caesar: Legal Responses to Religious Nonconformity in the Armed Forces*, 18 St. Mary's L. Rev. 1233, 1242 (1987).

¹⁷ See generally Levine, *The Doctrine of Military Necessity in the Federal Courts*, 89 Mil. L. Rev. 3, 4 (1980). See also Kaczynski, *From O'Callahan to Chappell: The Burger Court and the Military*, 18 U. Rich. L. Rev. 235, 293 (1984); Folk, *Military Appearance Requirements and Free Exercise of Religion*, 98 Mil. L. Rev. 53, 72 (1982). For a detailed analysis of the *Goldman* decision's reliance on the military necessity doctrine, see Vinet, *Goldman v. Weinberger: Judicial Deference to Military Judgment in Matters of Religious Accommodation of Servicemembers*, 36 Naval L. Rev. 257, 263-71 (1986).

¹⁸ *Brown v. Glines*, 444 U.S. 348, 354 (1980) (internal quotation marks and citations omitted) (holding that a regulation requiring servicemembers to obtain command permission before circulating petitions on base was not void on its face).

ety.¹⁹ The Court has repeatedly emphasized, however, that servicemembers do not lose all constitutional protection "simply because they have doffed their civilian clothes."²⁰

The second basis of the military necessity doctrine is judicial deference to Congress. The Constitution gives Congress the power "To make Rules for the Government and Regulation of the land and naval Forces."²¹ In *Rostker v. Goldberg*,²² the Supreme Court held that because of this constitutional provision, judicial deference "is at its apogee when legislative action under the congressional authority to raise and support armies and make rules and regulations for their governance is challenged."²³

While the military necessity doctrine has been a recurring theme in Supreme Court decisions since 1953,²⁴ the Court in *Goldman* "was more deferential to the military than it ever has been in the past."²⁵ Because of the military's need for discipline "in order to prepare for and perform its vital role," the *Goldman* majority conceded that the Court's "review of military regulations challenged on First Amendment grounds is far more deferential than constitutional review of similar laws or regulations designed for civilian society."²⁶ While

¹⁹ *Parker v. Levy*, 417 U.S. 733, 751 (1974) (sustaining court-martial conviction of an Army officer who had counseled enlisted soldiers to refuse to obey orders sending them to Vietnam even though similar speech by civilians would have been constitutionally protected).

²⁰ *Chappell v. Wallace*, 462 U.S. 296, 304 (1983) (holding that servicemembers may not sue superior officers over alleged constitutional violations). See generally Brodsky, *Chappell v. Wallace: A Bivens Answer to a Political Question*, 35 Naval L. Rev. 1 (1986).

²¹ U.S. Const. art. I, § 8, cl. 14.

²² 453 U.S. 57 (1981) (rejecting sex discrimination challenge brought against all-male draft registration law).

²³ *Id.* at 70.

²⁴ In 1953, the Supreme Court decided two cases which defined the modern military necessity doctrine. In *Orloff v. Willoughby*, 345 U.S. 83 (1953), the Court contended that the judiciary must be "scrupulous not to interfere with legitimate Army matters." In *Burns v. Wilson*, 346 U.S. 137, 140 (1953) (plurality decision), the Court indicated that "the rights of men in the armed forces must perforce be conditioned to meet certain overriding demands of discipline and duty, and the civil courts are not the agencies which must determine the precise balance to be struck in this adjustment." This portion of the plurality opinion actually commanded a majority of the Court. Justice Minton noted in his concurring opinion: "I do not agree that the federal civil courts sit to protect the constitutional rights of military defendants. . . . We have but one function, namely, to see that the military court has jurisdiction." *Id.* at 146-47 (Minton, J., concurring).

For an overview of the military necessity doctrine's historical development, see O'Neil, *Civil Liberty and Military Necessity—Some Preliminary Thoughts on Goldman v. Weinberger*, 113 Mil. L. Rev. 31, 42-43 (1986).

²⁵ *The Supreme Court, 1985 Term—Leading Cases*, 100 Harv. L. Rev. 100, 163 (1986) [hereinafter *Leading Cases*].

²⁶ *Goldman*, 475 U.S. at 507.

observing that the need for discipline does not "render entirely nugatory in the military context the guarantees of the First Amendment," the *Goldman* majority indicated that "courts must give great deference to the professional judgment of military authorities concerning the relative importance of a particular military interest."²⁷ Culminating this argument for judicial deference, Justice Rehnquist wrote: "Not only are courts ill-equipped to determine the impact upon discipline that any particular intrusion upon military authority might have, . . . but the military authorities have been charged by the Executive and Legislative Branches with carrying out our Nation's military policy."²⁸ Quoting *Rostker*, Rehnquist stressed that judicial deference "is at its apogee" in cases dealing with Congress's authority to regulate the military.²⁹

Deferring to "the appropriate military officials" who decided that the wearing of yarmulkes "would detract from the uniformity sought by the dress regulations," the majority concluded:

The Air Force has drawn the line essentially between religious apparel which is visible and that which is not, and we hold that those portions of the regulations challenged here reasonably and even-handedly regulate dress in the interest of the military's perceived need for uniformity. The First Amendment therefore does not prohibit them from being applied to petitioner even though their effect is to restrict the wearing of the headgear required by religious beliefs.³⁰

Justice Stevens authored a concurring opinion which Justices White and Powell joined. Like Justice Rehnquist, Justice Stevens deferred to the military's judgment of the regulation's necessity.³¹

²⁷*Id.*

²⁸*Id.* at 507-08 (internal quotation marks, citations and ellipsis omitted).

²⁹*Id.* at 508 (quoting *Rostker*, 453 U.S. at 70). One commentator writing about the circuit court panel's similar reasoning objected that because "the regulation at issue in *Goldman* was promulgated by the military, and was not subjected to a congressional determination of constitutionality," the court's reliance on *Rostker* was inappropriate. Note, *Military's Uniform Requirements*, *supra* note 13, at 211.

³⁰*Goldman*, 475 U.S. at 510.

³¹*Id.* (Stevens, J., concurring). In considering "the separate interest in uniformity itself," Justice Stevens contended:

Because professionals in the military service attach great importance to that plausible interest, it is one that we must recognize as legitimate and rational even though personal experience or admiration for the performance of the "rag-tag band of soldiers" that won us our freedom in the Revolutionary War might persuade us that the Government has exaggerated the importance of that interest.

Id. at 512. Justice Stevens contended that "of still greater importance" than military necessity "is the interest in uniform treatment for the members of all religious faiths."

2. *The Dissent.*

The four dissenting votes were split among three opinions.³² The one issue over which these opinions converged was judicial deference; none of the dissenting Justices would allow the military to determine its own regulation's constitutionality. All of the dissenting opinions

Id. (Stevens, J., concurring). Rather than allowing the military to permit servicemembers to wear yarmulkes while forbidding other servicemembers from wearing Sikh turbans or Rastafarian dreadlocks, Justice Stevens argued, "The Air Force has no business drawing distinctions between such persons when it is enforcing commands of universal application." *Id.* at 513. (Stevens, J., concurring). Justice Stevens commended the military for adopting a "neutral, completely objective standard" of "visibility." *Id.* (Stevens, J., concurring).

Contrary to Justice Stevens's assertion of an objective standard, however, Air Force uniform regulations permitted airmen to wear up to three rings of nonuniform design. Air Force Reg. 35-10, § 1-12(b)(1)(b) (1978). Thus, the Air Force allows nonuniform visible jewelry, including religious jewelry, to be worn. See *Goldman*, 475 U.S. at 518 (Brennan, J., dissenting). No "neutral, completely objective standard" is enforced. Justice Brennan also notes that even if a "visibility" standard were adopted and enforced, this would permit "only individuals whose outer garments and grooming are indistinguishable from those of mainstream Christians to fulfill their religious duties. . . . The practical effect of this categorization is that, under the guise of neutrality and even-handedness, majority religions are favored over distinctive minority faiths." *Id.* at 520-21 (Brennan, J., dissenting) (emphasis in the original). Justice Blackmun added, "Not only would conventional faiths receive special treatment under such an approach; they would receive special treatment precisely because they are conventional." *Id.* at 527 (Blackmun, J., dissenting) (emphasis in the original).

³²Justice Brennan, joined by Justice Marshall, argued that the judiciary should use the strict scrutiny test to evaluate first amendment challenges to military regulations. *Goldman*, 475 U.S. at 516 n.2 (Brennan, J., dissenting). Justice Brennan specifically criticized the majority for "evad[ing] its responsibility by eliminating, in all but name only, judicial review of military regulations that interfere with the fundamental constitutional rights of service personnel." *Id.* at 515 (Brennan, J., dissenting).

In a separate dissent, Justice Blackmun refused to allow "free exercise rights [to] be compromised simply because the military says they must be." *Id.* at 525 (Blackmun, J., dissenting). Instead, Justice Blackmun contended, "Except as otherwise required by 'interests of the highest order,' soldiers as well as civilians are entitled to follow the dictates of their faiths." *Id.* (Blackmun, J., dissenting). However, Justice Blackmun based his dissent on the Air Force's failure to produce "even a minimally credible explanation for its refusal to allow *Goldman* to keep his head covered indoors." *Id.* at 526 (Blackmun, J., dissenting).

Justice O'Connor, joined by Justice Marshall, argued that the judiciary should apply the same free exercise test in civilian and military contexts. *Id.* at 530 (O'Connor, J., dissenting). Her two-pronged test would require the government to demonstrate that the interest it asserts against a religiously based claim "is of unusual importance" and that granting an exemption would "do substantial harm to the especially important government interest." *Id.* at 531 (O'Connor, J., dissenting). While concluding that "[t]he need for military discipline and esprit de corps is unquestionably an especially important governmental interest," Justice O'Connor found that "the Government can present no sufficiently convincing proof in this case to support an assertion that granting an exemption of the type requested here would do substantial harm to military discipline and esprit de corps." *Id.* at 531-32 (O'Connor, J., dissenting). For an analysis of Justice O'Connor's dissent, see O'Neil, *supra* note 24, at 44-45.

called for some critical judicial scrutiny of military necessity claims that would infringe servicemembers' free exercise of religion.³³

C. ANALYSIS

The *Goldman* decision has become the subject of considerable criticism; the decision's critics even included one retired Supreme Court Justice.³⁴ The greatest objection to the decision is its extreme deference to the military. Critics contend that such deference "sends a legitimating message to military officials prone to suppress the individuality of service personnel and leaves unanswered the question of when, if ever, the Court is prepared to defend the liberties of Americans who serve their country in the armed forces."³⁵ Another critic objected to application of the *Rostker* analysis to the *Goldman* case. Noting that the *Rostker* decision rested on the premise that "the judiciary should not substitute its own judgment or evaluation for what Congress determines is desirable," this commentator observed that "the regulation at issue in *Goldman* was promulgated by the military, and was not subjected to a congressional determination of constitutionality."³⁶ The commentator contended that there are "dangers implicit in judicial acquiescence in military judgments affecting first amendment rights."³⁷ One such danger is that "unlike acts of Congress, military judgments are not debated by Congress—a branch of government coequal with the judiciary."³⁸

Regardless of the decision's merits, it will likely have profound effects. Major Folk notes that by rejecting "the strict scrutiny test in

³³ Justice Brennan's dissenting opinion advocated application of the strict scrutiny test to governmental restraints on servicemembers' first amendment rights. *Goldman*, 475 U.S. at 516 n.2 (Brennan, Jr., dissenting). Justice Blackmun indicated the *Goldman* case did not require a determination of "the extent to which the ordinary test for inroads on religious freedom must be modified in the military context, because the Air Force has failed to produce even a minimally credible explanation for its refusal to allow Goldman to keep his head covered indoors." *Id.* at 526 (Blackmun, J., dissenting). He concluded, "In these circumstances, deference seems unwarranted," and therefore favored reversing the circuit court's opinion. *Id.* at 527 (Blackmun, J., dissenting). Justice O'Connor articulated a standard of review for use in both civilian and military contexts. This standard would require the government to demonstrate that the state interest which burdens the free exercise of religion "is of unusual importance" and that granting an exception would "do substantial harm to the especially important government interest." *Id.* at 531 (O'Connor, J., dissenting).

³⁴ Goldberg, *The Free Exercise of Religion*, 20 Akron L. Rev. 1 (1986).

³⁵ *Leading Cases*, *supra* note 25, at 172.

³⁶ Note, *Military's Uniform Regulations*, *supra* note 13, at 208.

³⁷ *Id.* at 211.

³⁸ *Id.* at 211-12. The commentator also noted that "the nature of the court's analysis in *Goldman* permits military officials to make deep inroads into any constitutionally protected area based solely on the military officials' assessments of the possible dangers of regulatory exceptions." *Id.* at 213.

the military context" and requiring that "courts defer to professional military judgment about the importance of military interests," *Goldman* should "lead to fewer challenges to military requirements that involve professional military judgment and to disposal of more challenges to internal military decisions based on the pleadings."³⁹ The ruling will thus largely remove the judiciary from the task of balancing the military's needs against servicemembers' liberty interests.

There is reason, however, to question *Goldman*'s longevity. In the 5-4 decision, both Chief Justice Burger's and Justice Powell's votes were essential to the majority. While on the U.S. Court of Appeals for the District of Columbia Circuit, Justice Scalia joined in an opinion sympathetic to servicemembers' free exercise of religious rights.⁴⁰ The extent to which *stare decisis* may protect the decision from being overturned remains uncertain.

III. CONGRESSIONAL CONSIDERATION OF UNIFORM REGULATIONS AND RELIGIOUS APPAREL

The rationale underlying the *Goldman* majority's almost complete deference to the military points to a complementary congressional role in protecting servicemembers' free exercise interests. The Court noted that judicial deference is greatest when Congress's authority to make rules for the military is challenged.⁴¹ Indeed, the military necessity doctrine was founded on just such deference to Congress. As the *Burns v. Wilson* plurality opinion noted, the framers "expressly entrusted" to Congress the task of determining "the precise balance" to be struck between servicemembers' rights and certain "overriding demands of discipline and duty."⁴²

The President also bears responsibility in this area. This stems primarily from the constitutional provision that "The President shall be Commander in Chief of the Army and Navy of the United States."⁴³ The significant degree to which Congress has delegated its military

³⁹Folk, *The Military, Religion, and Judicial Review: The Supreme Court's Decision in Goldman v. Weinberger*, *The Army Lawyer*, Nov. 1986, at 5, 10. Major Folk served on a committee of the Joint Service Study Group on Religious Practice.

⁴⁰*Goldman*, 739 F.2d 657, 657 (D.C. Cir. 1984) (Starr, J., dissenting from denial of rehearing). See *supra* note 14. Professor Neuborne has identified *Goldman* as the only case from the 1985 term in which Justice Scalia's replacement of Chief Justice Burger would have resulted in a different outcome. *Supreme Court with a New Lineup Embarks on 1986 Terms*, Wash. Post, Oct. 6, 1986, at A9, col. 1.

⁴¹*Goldman*, 475 U.S. at 507.

⁴²346 U.S. 137 (1953). See *supra* note 24.

⁴³U.S. Const. art. II, § 2, cl. 1.

rule-making authority to the President⁴⁴ also implies an executive role in protecting servicemembers' liberty interests. Because of Congress' constitutionally assigned duty to make rules for the military's governance, however, the legislative branch bears the ultimate responsibility for protecting servicemembers' liberty interests.

This legislative responsibility to arbitrate between servicemembers' freedoms and military necessity indicates that Congress has a responsibility to fill the breach that the *Goldman* decision created. In the wake of the Supreme Court's refusal to do so, Congress bears the burden of evaluating military uniform regulations that forbid servicemembers from wearing religiously-required apparel while in uniform. In a series of debates over proposed legislation to grant servicemembers a right to wear certain religious items while in uniform, Congress has fulfilled this responsibility.

A. CONGRESSIONAL RESPONSE TO THE D.C. CIRCUIT'S GOLDMAN DECISION

After the U.S. Court of Appeals for the District of Columbia Circuit ruled that the Air Force could constitutionally prohibit Captain Goldman from wearing a yarmulke while in uniform,⁴⁵ several members of Congress criticized the Air Force's uniform regulations. Representative Solarz (D-N.Y.)⁴⁶ and Senators Hatch (R-Utah)⁴⁷ and D'Amato (R-N.Y.)⁴⁸ argued that the Air Force regulations were unconstitutional, while only one member of Congress, Representative Hartnett (R-S.C.), spoke on the floor in support of the regulations.⁴⁹

Representative Solarz sparked this congressional deliberation by introducing an amendment to the 1985 Department of Defense Authorization Bill that proposed establishing a one-year test period during which servicemembers could wear "unobtrusive" religious headgear. This amendment provided: "A member of the armed forces may wear at any time unobtrusive religious headgear, such as a skullcap, if the religious observances or practices of that member include the

⁴⁴ See 10 U.S.C. § 121 (1982).

⁴⁵ *Goldman v. Secretary of Defense*, 734 F.2d 1531 (D.C. Cir. 1984).

⁴⁶ 130 Cong. Rec. H4863 (daily ed. May 24, 1984) (statement of Rep. Solarz).

⁴⁷ 130 Cong. Rec. S7421 (daily ed. June 15, 1984) (statement of Sen. Hatch).

⁴⁸ *Id.* (statement of Sen. D'Amato).

⁴⁹ Representative Hartnett stated, "I do not think that any member of any religious order to be true to his faith or true to his beliefs has to outwardly wear during duty hours headgear; even though it might be unobtrusive." 130 Cong. Rec. H4838 (daily ed. May 24, 1984) (statement of Rep. Hartnett). Representative Hartnett is no longer in Congress; in 1986, he was defeated in his bid to become South Carolina's lieutenant governor. See M. Barone & G. Ujifusa, *The Almanac of American Politics* 1988, 1074 (1987).

wearing of such headgear, unless such practices would interfere with the performance of particular military duties assigned to that member."⁵⁰ The amendment allowed the military services to determine which items of religious headgear would be considered unobtrusive.⁵¹

The legislation also provided that "on the day that is one year after the date of enactment of this Act," the religious headgear exemption would be repealed.⁵² Representative Solarz explained that the exemption

is for a 1-year trial period. At the end of that year the law would lapse, although it would be my expectation that at the end of the year, if no serious problems have developed, we would extend it with new legislation where the armed services themselves would adopt the appropriate regulations. . . . [S]o, a period of testing will occur to insure that no problems with this change of policy would occur which inhibit the armed services from maintaining discipline.⁵³

Although the House adopted Representative Solarz's proposal, the Senate version of the authorization bill merely required the Department of Defense to issue a report recommending regulation changes that would permit servicemembers to practice their religions without interfering with military discipline or uniform appearance.⁵⁴ The legislation that emerged from the conference committee contained a

⁵⁰H.R. 5167, § 507, 98th Cong., 2d Sess., 130 Cong. Rec. H4836 (daily ed. May 24, 1984). While he did not voice support for the Air Force's regulations, Senator Symms (R-Idaho) expressed concern that Representative Solarz' proposal constituted "micro-management of what the uniform codes will be and dress codes will be in the military." 130 Cong. Rec. S7422 (daily ed. June 15, 1984) (statement of Sen. Symms). The House of Representatives, acting as a committee of the whole, adopted the Solarz proposal by a vote of 39 to 24. 130 Cong. Rec. H4839 (daily ed. May 24, 1984).

⁵¹See 130 Cong. Rec. H4837 (daily ed. May 24, 1984) (statement of Rep. Solarz).

⁵²H.R. 5167, § 507(b), 130 Cong. Rec. H4836 (daily ed. May 24, 1984).

⁵³130 Cong. Rec. H4836 (daily ed. May 24, 1984) (statement of Rep. Solarz). Representative Solarz' proposal is a novel form of "sunset" legislation. A program or administrative agency that is subject to a sunset law "will terminate by a certain date unless, after an evaluation, the legislature determines that the program warrants continuation." Davis, *Review Procedures and Public Accountability in Sunset Legislation: An Analysis and Proposal for Reform*, 33 Ad. L. Rev. 393, 393 (1981). Sunset laws are designed to encourage periodic legislative reexamination of administrative agencies and programs. See generally Price, *Sunset Legislation in the United States*, 30 Baylor L. Rev. 401, 414-19 (1978) (analyzing sunset legislation's origins). Like more traditional examples of sunset legislation, Representative Solarz's proposal would have prompted program review and evaluation.

⁵⁴S. 2723, § 1046, 98th Cong., 2d Sess., 130 Cong. Rec. S7420 (daily ed. June 15, 1984). The Senate adopted this proposal without a recorded vote. 130 Cong. Rec. S7422 (daily ed. June 15, 1984).

provision similar to the Senate's amendment. The authorization bill, which President Reagan signed into law,⁵⁵ provided:

In order to promote the free expression of religious members of the Armed Forces to the greatest extent possible consistent with the requirements of military discipline, the Secretary of Defense shall form a study group to examine ways to minimize the potential conflict between the interests of members of the Armed Forces in abiding by their religious tenets and the military interest in maintaining discipline.⁵⁶

Deputy Secretary of Defense Taft accordingly established a Joint Study Group on Religious Practice,⁵⁷ which made its report in March 1985.⁵⁸

The author of the Senate amendment calling for the study, Senator Hatch, favored a reversal of the circuit court panel's *Goldman* decision.⁵⁹ In urging that Congress order the Department of Defense to conduct a study rather than directly overrule the uniform regulations, Senator Hatch explained that "based on discussions with the highest officers of the services," he understood "that the study will result in regulation changes that will accommodate religious beliefs to the maximum extent feasible consistent with requirements for military discipline." Senator Hatch added, "I will be severely disappointed in the representations of top military officers who have discussed the matter with me if the result of this study is simply a documented defense of the status quo or the study becomes a measure to justify denying religious rights and liberties."⁶⁰ Yet a defense of the status quo is largely what the study turned out to be.

B. THE JOINT SERVICE STUDY GROUP ON RELIGIOUS PRACTICE REPORT

The Joint Service Study Group on Religious Practice consisted of six generals and three admirals; it included the Army, Air Force and

⁵⁵President's Statement on Signing H.R. 5167 into law, 20 Weekly Comp. Pres. Doc. 1581 (Oct. 19, 1984).

⁵⁶Department of Defense Authorization Act, 1985, Pub. L. No. 98-525 § 554 (a), 98 Stat. 2492, 2532 (1984).

⁵⁷Memorandum from Deputy Secretary Taft to Secretaries of the Military Departments (Oct. 12, 1984), reprinted in Joint Study, *supra* note 7, at A 4.

⁵⁸Joint Study, *supra* note 7. See generally Folk, *Religion and the Military: Recent Developments*, *The Army Lawyer*, Dec. 1986, at 6, 7 [hereinafter *Recent Developments*].

⁵⁹During debate on the study proposal, Senator Hatch urged the U.S. Court of Appeals for the District of Columbia Circuit to hear *Goldman* en banc and reverse "the unfortunate decision of the lower court." In the event that "the court of appeals does not so rule," Senator Hatch urged the Supreme Court to grant certiorari and reverse. 130 Cong. Rec. S7421 (daily ed. June 15, 1984) (statement of Sen. Hatch).

⁶⁰*Id.*

Navy Chiefs of Chaplains,⁶¹ the Navy Judge Advocate General, and five line officers.⁶²

The Study Group concluded that "it would be unwise to permit visible exceptions to uniform and dress appearance standards except in limited situations."⁶³ Such "limited situations" were confined to two circumstances: (1) when "items of religious apparel" are worn "in individual living spaces;" and (2) when "chaplains of faiths which require religious accouterments indoors" wear these articles.⁶⁴ Neither of these exceptions would protect servicemembers like Captain Goldman who seek to wear religious apparel while on duty.

The Study Group made three specific findings concerning uniform regulation exceptions for religious apparel: (1) "Military uniform and appearance standards contribute significantly to the cohesion and discipline of military units. Cohesion and discipline are essential to a highly effective military force,"⁶⁵ (2) "Except where permitted in sharply limited and clearly defined circumstances, visible or otherwise apparent exceptions to military uniform and appearance standards have a significant adverse impact on cohesion, discipline, and military effectiveness,"⁶⁶ and (3) "Creation of a mandatory standard for accommodation of personal, religious practices in the Armed Forces runs a grave risk of undermining esprit de corps, military discipline and the military justice system."⁶⁷ The Study Group therefore concluded: "The potential negative impacts on identification and discipline, on cohesion and esprit de corps, and on the public image of the military services would outweigh the possible benefits to the individuals involved or to the service of permitting visible religious expression within the military context."⁶⁸

⁶¹The Marine Corps has no chaplains; the Navy provides chaplains for the Marine Corps. Joint Study, *supra* note 7, at iii.

⁶²The Study Group's members are listed in the Joint Study, *supra* note 7, at ii. The Study Group surveyed the practices of 98 religious groups and sects. See Joint Study, *supra* note 7, at A 7-11 for a list of those religious groups surveyed. The groups studied were extremely diverse; they included the Church of Satan, the International Society of Krishna, and Rastafarians. The Study Group conducted interviews with religious leaders as well as experts on constitutional law, the military, religion, and sociology. For a list of experts interviewed, see *id.* at A 25-26. University of Chicago Law Professor Philip Kurland and Long Island University Law Professor Leo Pfeffer provided constitutional analysis of the law relating to military accommodation of religious practices. See *id.* at A 50-78. Finally, the Study Group surveyed servicemembers about their views and experiences concerning religious accommodation requests. The survey questions, a description of the survey's methodology, and a tabulation of the results are provided in the Joint Study, *supra* note 7, at A 27-49.

⁶³Joint Study, *supra* note 7, at III 19.

⁶⁴*Id.* at III 21.

⁶⁵*Id.* at xi.

⁶⁶*Id.*

⁶⁷*Id.* at xii.

⁶⁸*Id.* at III 19.

The Study Group's conclusions were not the product of empirical findings. Social scientists testifying before the Study Group agreed that "there is no conclusive scientific data upon which to base decisions on this issue."⁶⁹ Several, though not all, of these social scientists found that "it would be almost impossible to acquire precise data."⁷⁰ The Study Group therefore based its conclusions on its members' "professional military judgment and experience."⁷¹

On the basis of this professional judgment, the Study Group found that "[w]earing common uniforms induces the wearers to view themselves as part of a group larger than themselves"⁷² and that "this group identification plays an essential role in the development of unit cohesion and institutional esprit de corps, which in turn contribute to military effectiveness."⁷³ The Study Group also pointed to "a small but growing body of literature which indicates that small unit cohesion can be a factor determining peacetime performance of a unit"⁷⁴ and concluded that uniform appearance is necessary to advance such cohesion.⁷⁵

The Study Group also noted that some religious dress or grooming requirements would violate safety standards. For example, the Study Group observed that beards may interfere with gas masks' proper fit, aircraft engines may suck in loose clothing, and jewelry and loose clothing may get caught in electrical equipment.⁷⁶ The Study Group also asserted that allowing visible signs of servicemembers' religions could foster prejudice within the ranks.⁷⁷ Finally, the Study Group contended that exceptions to uniform and appearance standards might discourage potential recruits from entering "what they perceive as no longer a 'sharp' military organization."⁷⁸

⁶⁹Id. at III 8.

⁷⁰Id.

⁷¹Id.

⁷²Id. at III 4.

⁷³Id. at III 5 (citing Segal, *Military Service in the Nineteen-Seventies: Attitudes of Soldiers and Civilians*, in F. Margiotta, *The Changing World of the American Military* (1978); F. Manning & L. Ingraham, *An Investigation into the Value of Unit Cohesion in Peacetime* (1983) (unpublished paper prepared for the Walter Reed Army Institute of Research)).

⁷⁴Joint Study, *supra* note 4, at III 6 (citing Ingraham & Manning, *Cohesion: Who Needs It, What It Is and How Do We Get It to Them?*, Mil. Rev., June 1981, at 2-12; and U.S. Army War College, *Cohesion: The Vital Ingredient for Successful Army Units* (1983)).

⁷⁵Joint Study, *supra* note 7, at III 7.

⁷⁶Id. at III 7-8. Cf. *Menora v. Illinois High School Ass'n*, 683 F.2d 1030 (7th Cir. 1982). In *Menora*, the Seventh Circuit upheld a high school sports association's rule forbidding basketball players from wearing yarmulkes or other head coverings while playing. The decision was based largely on safety considerations.

⁷⁷Joint Study, *supra* note 7, at III 12.

⁷⁸Id. at III 14.

C. RESULTING DEFENSE DEPARTMENT POLICY CHANGES

At the Study Group's recommendation, the Defense Department issued regulations concerning the accommodation of religious practices within the military.⁷⁹ This Defense Department directive prohibited servicemembers from wearing visible religious apparel while on duty.⁸⁰

The Department of the Army adopted a regulation to implement the Defense Department directive.⁸¹ This Army regulation included specific rules governing religious apparel and established procedures for requesting permission to wear visible religious items with the Army uniform. Under Defense Department policy, however, servicemembers were authorized to wear visible articles only in "personal living areas" and during religious services.⁸² Major Folk, who served on a Joint Service Study Group support committee, noted that "[i]t is unclear what the term 'living spaces' will include, but it almost certainly will not include areas such as work sites."⁸³

D. CONGRESSIONAL RESPONSE TO THE SUPREME COURT'S GOLDMAN DECISION

Within two weeks of the Supreme Court's *Goldman* decision, Senators D'Amato (R-N.Y.) and Lautenberg (D-N.J.) introduced legislation to allow servicemembers to wear "neat, conservative, and unobtrusive" religious apparel which does not "significantly" interfere with "the performance of the member's military duties."⁸⁴ Senator

⁷⁹Dep't. of Defense Directive 1300.17, Accommodation of Religious Practices within the Military Services (June 18, 1985) [hereinafter DOD Directive 1300.17]. See generally *Recent Developments*, *supra* note 58, at 6.

⁸⁰DOD Directive 1300.17, *supra* note 79.

⁸¹Army Reg. 600-20, Personnel—Army Command Policy and Procedures (15 Oct. 1980) (I05 26 Aug. 1985) [hereinafter AR 600-20]. See generally *Recent Developments*, *supra* note 58, at 8-11.

⁸²See DOD Directive 1300.17, *supra* note 79.

⁸³*Recent Developments*, *supra* note 58, at 11.

⁸⁴S. 2269, 99th Cong., 2d Sess., 132 Cong. Rec. S3786 (daily ed. Apr. 8, 1986). The legislation stated

(a) Except as provided in subsection (b), a member of the armed forces may wear an item of religious apparel if—

(1) the wearing of the item of apparel is part of the religious observance of the religious faith practiced by the member; and

(2) the item of apparel is neat, conservative, and unobtrusive.

(b) The Secretary concerned may prohibit a member from wearing an item of religious apparel if the Secretary determines that the wearing of such item significantly interferes with the performance of the member's military duties.

D'Amato noted that this legislation would extend beyond the case of yarmulkes to allow any religiously motivated apparel that fits within the neat, unobtrusive and conservative criteria. In support of the legislation, Senator D'Amato argued, "I question whether we can afford to preclude a certain group within our society from voluntary military service because of their centuries-old legitimate religious beliefs concerning the wearing of certain types of religious apparel."⁸⁵ He also alluded to the difficulty that would arise if adherents to religions with apparel requirements were drafted into the military.⁸⁶ Characterizing the legislation as an attempt to "further strengthen the right of freedom of religion in the country," Senator D'Amato contended that "[o]ur Armed Forces should not be in the position of completely dictating what religious behavior is acceptable."⁸⁷

The House of Representatives Armed Services Committee adopted a slightly modified version of this proposal as a provision in the 1987 Department of Defense Authorization Bill, which it reported to the House.⁸⁸ The committee report explained that the "provision would accommodate, for example, neat and conservative Jewish yarmulkes."⁸⁹ While noting that under the provision's "neat and conservative" language, "[o]ther religious apparel might be permitted," the committee report indicated the "provision would not, however, open the door to all manner of garb."⁹⁰ The committee report specifically cited religious robes as apparel which "would likely interfere with the performance of military duties."⁹¹

The defense authorization bill, which the Senate Armed Services Committee reported to the Senate, contained no provisions dealing with religious apparel.⁹² During the authorization bill's consideration on the Senate floor, Senator Lautenberg offered an amendment virtually identical to the D'Amato-Lautenberg bill and the religious apparel accommodation provision of the House bill.⁹³ Senator Lautenberg presented the basic arguments for the amendment. He observed that the religious apparel provision "is broader than any one

⁸⁵ 132 Cong. Rec. S3786 (daily ed. April 8, 1986) (statement of Sen. D'Amato).

⁸⁶ *Id.* at S3785. Senator D'Amato noted, "It is uncertain whether the Supreme Court would have affirmed the lower courts [sic] decision if Goldman had not joined the Air Force of his own choice." *Id.*

⁸⁷ *Id.*

⁸⁸ H.R. 4428, 99th Cong., 2d Sess. § 502, 132 Cong. Rec. H7126-92 (daily ed. Sept. 18, 1986).

⁸⁹ H.R. Rep. No. 718, 99th Cong., 2d Sess. 200 (1986).

⁹⁰ *Id.*

⁹¹ *Id.*

⁹² S. 2638, 99th Cong., 2d Sess., 132 Cong. Rec. S11011-75 (daily ed. Aug. 9, 1986).

⁹³ Amendment 2628 to S. 2638, 132 Cong. Rec. S10697 (daily ed. Aug. 7, 1986).

religion. It concerns the right of people of all faiths to serve their country without having to forego their religious beliefs and practices.⁹⁴ Rather than damaging esprit de corps, Senator Lautenberg contended, the amendment would "strengthen morale by affirming that the military is a humane and tolerant institution."⁹⁵ Senator Lautenberg also argued that such an exemption would not interfere with discipline. He observed that "Captain Goldman himself, as well as many other members of the armed services, have worn skullcaps for many years in the military service without any apparent disruption, difficulty, or adverse impact on military effectiveness."⁹⁶ Pointing to other nations' experiences, Senator Lautenberg noted that servicemembers in Canada, India, Israel, New Zealand, and the United Kingdom are permitted to wear religious headwear with no apparent effect on military readiness.⁹⁷ Senator Lautenberg therefore concluded, "Our own experience, and that of other countries on the question speaks for itself. There is simply no evidence that the wearing of visible religious apparel interferes with uniformity or unit cohesion."⁹⁸

The amendment's opponents made four basic arguments: (1) a religious apparel exception to uniform regulations could become a slippery slope leading to servicemembers wearing feathered headdresses and kilts;⁹⁹ (2) lack of uniformity will harm morale;¹⁰⁰ (3) commanding officers will have difficulty judging whether particular items of religious apparel fit within the exception;¹⁰¹ and (4) a religious apparel exception would generate "a tremendous amount of litigation" to define the standards which the military should use in deciding which articles of clothing to permit.¹⁰²

After more than an hour of debate, Senator Warner (R-Va.) moved to table the amendment.¹⁰³ The Lautenberg amendment was killed when the Senate approved the motion to table by a 51 to 49 vote.¹⁰⁴

⁹⁴ 132 Cong. Rec. S10698 (daily ed. Aug. 7, 1986) (statement of Sen. Lautenberg).

⁹⁵ *Id.*

⁹⁶ *Id.*

⁹⁷ *Id.* For a brief comparative law discussion, see *Current Topics, Religious Freedom and Military Discipline*, 61 Austl. L.J. 54, 55-56 (1987).

⁹⁸ 132 Cong. Rec. S10698 (daily ed. Aug. 7, 1986) (statement of Sen. Lautenberg).

⁹⁹ *Id.* at S10699 (daily ed. Aug. 7, 1986) (statement of Sen. Goldwater).

¹⁰⁰ *Id.*

¹⁰¹ 132 Cong. Rec. S10702 (daily ed. Aug. 7, 1986) (statement of Sen. Thurmond). Senator Lautenberg countered that "the services have a successful record of using the neat and conservative standard to distinguish acceptable from unacceptable jewelry." 132 Cong. Rec. S10698 (daily ed. Aug. 7, 1986) (statement of Sen. Lautenberg).

¹⁰² 132 Cong. Rec. S10703 (daily ed. Aug. 7, 1986) (statement of Sen. Nunn).

¹⁰³ 132 Cong. Rec. S10703 (daily ed. Aug. 7, 1986).

¹⁰⁴ *Id.* at S10703-04. The vote was largely along party lines. Thirty-seven Republicans voted to table the amendment while 15 voted against the motion. Fourteen Democrats voted for the motion to table while 34 voted against.

The conference committee resolved the dispute between the House and Senate bills by dropping the House's religious apparel accommodation provision;¹⁰⁵ the 1987 defense authorization bill was enacted without any provision dealing with religious apparel.¹⁰⁶

IV. THE RELIGIOUS APPAREL ACCOMMODATION STATUTE

A. CONGRESSIONAL ACTION

1. *The House of Representatives.*

In the 100th Congress, Representative Schroeder (D-Colo.) introduced an amendment to the 1988 defense authorization bill which would give servicemembers a right to wear "neat and conservative" items of religious apparel while in uniform.¹⁰⁷ This proposal was identical to Senator Lautenberg's accommodation proposal which the Senate had tabled the previous year.¹⁰⁸ Representative Schroeder noted that the "neat and conservative" standard was drawn from existing Air Force regulations, which use that term to define what jewelry members of the military may wear.¹⁰⁹ No one spoke against the amendment. Representative Dickinson (R-Ala.), the minority floor manager for the authorization bill, stated that while the Defense Department was opposed to the religious apparel measure, he personally had "no objection to an unobtrusive adornment being worn under a hat or without a hat."¹¹⁰ The House debated the amendment less than 20 minutes before approving it by voice vote.¹¹¹

2. *The Senate.*

When the 1988 defense authorization bill was being considered on the Senate floor, Senator Lautenberg introduced an amendment identical to that which had been adopted by the House.¹¹² The Senate assigned one hour to debate the amendment,¹¹³ with Senator Lautenberg acting as floor manager for the measure's proponents and Senator Glenn (D-Ohio) leading the opposition.

Addressing critics of the measure, Senator Lautenberg argued that while he agreed "with the importance of unit cohesion and esprit de

¹⁰⁵ H.R. Conf. Rep. No. 1001, 99th Cong., 2d Sess. 474 (1986).

¹⁰⁶ See S. 2638, 100th Cong. Rec. H10143-221 (daily ed. Oct. 14, 1986).

¹⁰⁷ Amendment to H.R. 1748, 100th Cong. Rec. H3341 (daily ed. May 3, 1987).

¹⁰⁸ See *supra* note 93 and accompanying text.

¹⁰⁹ 100th Cong. Rec. H3341 (daily ed. May 3, 1987) (statement of Rep. Schroeder).

¹¹⁰ 100th Cong. Rec. H3342-43 (daily ed. May 3, 1987) (statement of Rep. Dickinson).

¹¹¹ 100th Cong. Rec. H3343 (daily ed. May 3, 1987).

¹¹² Amendment 706 to S. 1174, 100th Cong. Rec. S12791 (daily ed. Sept. 25, 1987).

¹¹³ See 100th Cong. Rec. S12792 (daily ed. Sept. 25, 1987).

corps in the Armed Forces, I do not believe that wearing neat and conservative religious apparel threatens this principle. To the contrary, it would strengthen morale by affirming that the military is a humane and tolerant institution."¹¹⁴ In support of this argument, Senator Lautenberg observed that "for decades, our own Army accepted Sikhs and allowed them to wear their turbans. It still allows them to reenlist under those conditions. Would an Army that believed that the wearing of turbans impaired morale permit these Sikhs to enlist year after year? I think not."¹¹⁵ Like Representative Schroeder, Senator Lautenberg maintained that "the services have a successful record of using the neat and conservative standard to distinguish acceptable from unacceptable jewelry. If we can make this distinction for neat and conservative jewelry, why can't we make it for religious apparel?"¹¹⁶ Finally, Senator Lautenberg stressed that "this amendment is not confined to the wearing of yarmulkes, but addresses the wearing of any item of apparel that is part of the member's religious observance."¹¹⁷

Senator Murkowski (R-Alaska) presented the basic arguments against the measure: (1) the "neat and conservative" standard is not as easily applied as a visibility standard;¹¹⁸ and (2) "if the wearing of an item is disapproved, allegations will be made that the commander's decision is based on religious intolerance."¹¹⁹ Senator Chafee (R-R.I.) added, "[W]e would be making a big mistake to permit in this way the accentuation of the differences between the members of our military forces."¹²⁰ Senator Glenn discussed letters from Secretary of Defense Weinberger, the Joint Chiefs of Staff, the Army Chief of Staff, and the Commandant of the Marine Corps opposing the amendment.¹²¹

Although the Senate had tabled the same religious apparel accommodation provision the previous year,¹²² as a result of death, retire-

¹¹⁴ 133 Cong. Rec. S12792 (daily ed. Sept. 25, 1987) (statement of Sen. Lautenberg).

¹¹⁵ *Id.* In *Sherwood v. Brown*, 619 F.2d 47 (9th Cir.) (per curiam), cert. denied, 449 U.S. 919 (1980), the U.S. Court of Appeals for the Ninth Circuit upheld a Navy dress regulation prohibiting a Sikh sailor from wearing a turban. The court found that because the turban prevented the sailor from wearing a helmet, the Navy's legitimate concern for safety indicated that the dress regulation was the least restrictive means to carry out a compelling state interest. *Id.* at 4. See also *Khalasa v. Weinberger*, 779 F.2d 1393 (9th Cir. 1986) (dismissing suit of a Sikh who brought an action against the Army for refusing to process his enlistment application because his religious beliefs forbade him from complying with Army appearance requirements).

¹¹⁶ 133 Cong. Rec. S12792 (daily ed. Sept. 25, 1987) (statement of Sen. Lautenberg).

¹¹⁷ *Id.*

¹¹⁸ *Id.* at S12793 (statement of Sen. Murkowski).

¹¹⁹ *Id.*

¹²⁰ *Id.* at S12793-94 (statement of Sen. Chafee).

¹²¹ *Id.* at S12797-98 (statement of Sen. Glenn).

¹²² See *supra* note 104 and accompanying text.

ments and the 1986 elections, 11 of the senators who voted to table the provision did not return to the 100th Congress¹²³ while only three senators who voted against the motion to table did not return.¹²⁴ In 1987, five of the replacements for senators who opposed the 1986 Lautenberg amendment voted for the religious apparel accommodation provision.¹²⁵ All three replacements for supporters of the 1986 Lautenberg amendment who did not return to the 100th Congress voted in favor of the new amendment.¹²⁶ Six senators who had opposed the measure in 1986 supported the religious apparel accommodation amendment in 1987,¹²⁷ while three senators who had supported the 1986 Lautenberg amendment opposed the measure in 1987.¹²⁸ The final vote was 55 to 42 in favor of the religious apparel accommodation amendment.¹²⁹

3. Enactment.

Even after both houses of Congress had adopted the religious apparel accommodation legislation, the issue was not settled. Reportedly at the Defense Department's request, the House Appropriations Committee considered inserting language in the 1988 defense appropriations bill which would have blocked the religious apparel accommodation provision.¹³⁰ The committee, however, rejected the attempt to scuttle the accommodation legislation.¹³¹

¹²³They were Senators Abdnor (R-S.D., defeated in 1986 general election); Andrews (R-N.D., defeated in 1986 general election); Broyhill (R-N.C., defeated in 1986 general election); Denton (R-Ala., defeated in 1986 general election); Eagleton (D-Mo., retired); Goldwater (R-Ariz., retired); Gorton (R-Wash., defeated in 1986 general election); Laxalt (R-Nev., retired); Long (D-La., retired); Mattingly (R-Ga., defeated in 1986 general election); and Zorinsky (D-Neb., died in office in March 1987).

¹²⁴They were Senators Hart (D-Col., retired); Hawkins (R-Fla., defeated in 1986 general election); and Mathias (R-Md., retired).

¹²⁵They were Senators Adams (D-Wash.), who defeated Sen. Gorton (R); Breaux (D-La.), who succeeded the retiring Sen. Long (D); Daschle (D-S.D.), who defeated Sen. Abdnor (R); Karnes (R-Neb.), who was appointed to replace Sen. Zorinsky (D) when he died in office; and Reid (D-Nev.), who succeeded the retiring Sen. Laxalt (R).

¹²⁶They were Senators Graham (D-Fla.), who defeated Sen. Hawkins (R); Mikulski (D-Md.), who succeeded the retiring Sen. Mathias (R); and Wirth (D-Colo.), who succeeded the retiring Sen. Hart (D).

¹²⁷They were Senators Boschwitz (R-Minn.); Burdick (D-N.D.); Danforth (R-Mo.); Domenici (R-N.M.); Harkin (D-Iowa); and Rockefeller (D-W.V.).

¹²⁸They were Senators Byrd (D-W.V.); Johnston (D-La.); and Nickles (R-Oklahoma).

¹²⁹133 Cong. Rec. 12801 (daily ed. Sept. 25, 1987). Three senators, Simon (D-III.), Gore (D-Tenn.), and Weicker (R-Conn.), did not vote. Sen. Cranston (D-Cal.) announced that Gore, who supported the 1986 amendment, would have voted in favor of the 1987 amendment had he been present. 133 Cong. Rec. S12801 (daily ed. Sept. 25, 1987) (statement of Sen. Cranston). In 1986, Sen. Simon supported the religious apparel accommodation amendment while Sen. Weicker opposed it. 132 Cong. Rec. S10703-04 (daily ed. Aug. 7, 1986).

¹³⁰See H. R. Rep. No. 410, 100th Cong., 1st Sess. 37 (1987); see also DoD Officials Still Fighting Wear of Religious Articles, Air Force Times, Nov. 16, 1987, at 7, col. 1. [hereinafter DoD Officials].

¹³¹*Id.* The vote was taken 28 Oct. 1987.

The authorization bill emerged from the conference committee with a religious apparel accommodation provision identical to that passed by both the House and Senate.¹³² The conference committee report included a warning to the Department of Defense. Responding to "reports that the implementing regulations may be written so narrowly as to exclude virtually all religious apparel,"¹³³ the report noted that "the Army in the past has permitted the wearing of Sikh turbans and that the Senate and House floor debates cited various examples of the wearing of Jewish yarmulkes by members of the armed forces."¹³⁴ The report continued, "The statute leaves the service Secretaries with discretion as to specific items of religious apparel, but the conferees emphasize that a regulation that would exclude virtually all religious apparel would be contrary to precedent and the purposes of this statute."¹³⁵

The conference report contained a defense of the religious apparel statute. The report contended that "Congress has been extremely sensitive to the needs of the armed forces for uniformity, safety, good order, and discipline, and has carefully balanced those needs in light of the right of service members to freedom of religion, as well as the need to avoid governmental establishment of religion."¹³⁶ Responding to one of the points raised by opponents on the Senate floor, the report argued that while "concern has been expressed that the 'neat and conservative' standard may require commanders to make difficult determinations,"¹³⁷ the conferees determined "this issue can be largely alleviated by addressing in regulations those items of religious apparel that are likely to be at issue."¹³⁸ The conference committee conceded that the servicemember's "immediate chain of command" must initially decide whether an item of religious apparel is acceptable, and the servicemember must obey that order.¹³⁹ However, the committee went on to "direct that implementing regulations provide that final review take place within 30 days for cases arising within the United States, and within 60 days for all other cases."¹⁴⁰

The report noted that Congress expected the Department of Defense "to issue directives to ensure that the term 'neat and conservative' is

¹³²H.R. Conf. Rep. No. 446, 100th Cong., 1st Sess. 71-72 (1987).

¹³³See, e.g., *DoD Officials*, supra note 130 (noting, "Pentagon officials strongly oppose the change in uniform regulations. They have held several high-level meetings to work out strategies to kill the legislation before it is enacted, or to find a way to write the regulations so strictly that no item of religious apparel could qualify.").

¹³⁴H.R. Conf. Rep. No. 446, 100th Cong., 1st Sess. 638 (1987).

¹³⁵*Id.*

¹³⁶*Id.*

¹³⁷*Id.* See *supra* note 101 and accompanying text.

¹³⁸H.R. Conf. Rep. No. 446, 100th Cong., 1st Sess. 638 (1987).

¹³⁹*Id.* at 638-39.

¹⁴⁰*Id.* at 639.

applied in a fair and reasonable manner that effectuates the purposes of the statute."¹⁴¹ The conference committee gave the Department of Defense guidance in issuing such directives by specifying that "the 'nonuniform' aspect of religious apparel should not be used as the sole basis" for determining that an item of religious apparel interferes with military duties "except in unique circumstances, such as those involving ceremonial units."¹⁴²

The 1988 defense authorization bill with its religious apparel accommodation provision was passed by both houses of Congress¹⁴³ and signed into law by President Reagan.¹⁴⁴

In adopting the religious apparel accommodation legislation, Congress indicated that it is more disposed to protect servicemembers' religious apparel interests than is the Department of Defense. Yet both the legislative process and the statute which it produced demonstrate congressional caution when dealing with the military's internal regulations. Congress took three years to adopt the accommodation statute. Before legislating its own solution, Congress called for the Department of Defense to study the issue, a clear but almost unheeded signal for the Department of Defense to adopt religious apparel accommodation regulations.¹⁴⁵ When Congress did finally act, it chose not to legislate specific regulations. Instead, Congress relied on the Department of Defense to carry out a loosely defined policy of accommodation. Congress has thus shown itself to be sensitive to both servicemembers' liberty interests and the military's needs.¹⁴⁶

¹⁴¹ *Id.* at 638.

¹⁴² *Id.* The report noted that even in the case of a ceremonial unit, religious apparel should be prohibited only when the servicemember is "actually performing ceremonial functions." *Id.*

¹⁴³ The vote in the Senate was 86-9. 133 Cong. Rec. S16528 (daily ed. Nov. 19, 1987). The vote in the House was 264-158. 133 Cong. Rec. H10560 (daily ed. Nov. 18, 1987).

¹⁴⁴ 23 Weekly Comp. Pres. Doc. 1431 (Dec. 7, 1987). Upon being signed into law, the National Defense Authorization Act for Fiscal Years 1988 and 1989 became Pub. L. No. 100-180. The statute is codified at 10 U.S.C. § 774 (Supp. 1987).

¹⁴⁵ See *supra* notes 59-60 and accompanying text.

¹⁴⁶ One commentator has been highly critical of Congressional action in this area. Professor Noone contended that the religious apparel accommodation proposal "suffers from two obvious deficiencies: it neither addresses other kinds of religious observance which may conflict with disciplinary criteria, nor does it establish an objective, easily ascertainable standard for commanding officers to apply." Noone, *supra* note 16, at 1262. Professor Noone quoted a statement that Senator Lautenberg made during the 1986 debate: "it is a deep belief of mine that one can be a good, loyal, determined soldier, sailor, or airman without at any time having to make a decision between his belief and loyalty to his religions. They are never, in my view, in conflict." 132 Cong. Rec. S10703 (daily ed. Aug. 7, 1986) (statement of Sen. Lautenberg). Professor Noone countered that there are "many cases where religious belief and the military definition of the requirements of a disciplined armed force do conflict. His fundamental misunderstanding of the nature of the problem illustrates the legislature's ineptitude in attempting to resolve military free exercise conflicts." Noone, *supra* note 16, at 1262 n.138.

B. CONSTITUTIONAL ANALYSIS

The Supreme Court has observed that "tension inevitably exists between the Free Exercise and Establishment Clauses, and . . . it may often not be possible to promote the former without offending the latter."¹⁴⁷ This tension is reflected by questions as to whether accommodating some religious groups' desires for uniform regulation exceptions while denying others' would offend the establishment clause.¹⁴⁸ Several of the opinions in the *Goldman* case indicated that such selective accommodation might be held unconstitutional. Justice Stevens's concurring opinion and Justice Brennan's and Justice Blackmun's dissenting opinions, which together commanded six votes, stressed the importance of uniform treatment for members of all religious faiths. Justice Stevens, joined by Justices White and Powell, praised the visibility standard for not being "motivated by hostility against, or any special respect for, any religious faith. An exception for yarmulkes would represent a fundamental departure from the true principle of uniformity that supports that rule."¹⁴⁹ Justice Brennan, joined by Justice Marshall, also indicated his disapproval of selective accommodation: "It would be unfair to allow Orthodox Jews to wear yarmulkes, while prohibiting members of other minority faiths with visible dress and grooming requirements from wearing their saffron robes, dreadlocks, turbans, and so forth."¹⁵⁰ Finally, Justice Blackmun contended

To allow noncombat personnel to wear yarmulkes but not turbans or dreadlocks because the latter seem more obtrusive—or, as Justice Brennan suggests, less "polished" and "professional"—would be to discriminate in favor of this country's more established, mainstream religions, the practices of which are more familiar to the average observer.¹⁵¹

The religious apparel amendment's legislative history contains statements that the proposal was specifically designed to allow Jewish

¹⁴⁷ *Committee for Pub. Educ. v. Nyquist*, 413 U.S. 756, 788 (1973) (internal citations omitted).

¹⁴⁸ The Joint Study Group noted, "To allow some exceptions and not others" would not only have a negative impact on "cohesion and esprit," but "would raise legal questions as well." Joint Study, *supra* note 7, at III 21. The conference committee also expressed its concern about "the need to avoid governmental establishment of religion." H.R. Conf. Rep. No. 446, 100th Cong., 1st Sess. 638 (1987).

¹⁴⁹ *Goldman*, 475 U.S. at 513 (Stevens, J., concurring).

¹⁵⁰ *Id.* at 521 (Brennan, J., dissenting). Justice Brennan, however, emphasized that such selective accommodation is not more "unfair than the existing neutral standard that does result in the different treatment of Christians, on the one hand, and Orthodox Jews and Sikhs on the other." *Id.*

¹⁵¹ *Goldman*, 475 U.S. at 526-27 (Blackmun, J., dissenting) (internal citation omitted).

servicemembers to wear yarmulkes and Sikh servicemembers to wear turbans.¹⁵² Although the legislative history also contains Senator Lautenberg's comment that the legislation is not limited to any specific religions,¹⁵³ the debate over the proposal in the House, where it originated, exclusively considered yarmulkes and turbans. The legislation's constitutionality will thus turn on whether military regulations may selectively accommodate religious apparel requirements.

Application of the military necessity doctrine to the question yields the conclusion that uniform regulations can constitutionally accommodate some religious apparel requirements while prohibiting others. Relying in part on the military necessity doctrine, Justice White argued in his *Welsh v. United States* dissent that Congress could constitutionally grant conscientious objector status to those whose objections were based on belief in a supreme being while denying such status to those with a conscientious opposition to war which was not based on belief in a supreme being.¹⁵⁴ Specifically citing Congress's constitutionally assigned power "To raise and support Armies,"¹⁵⁵ Justice White characterized the conscientious objector statute as "a recognition by Congress of free exercise values and its view of desirable or required policy in implementing the Free Exercise Clause. That judgment is entitled to respect."¹⁵⁶ Asserting that "we should respect congressional judgment accommodating the Free Exercise Clause and the power to raise armies," Justice White concluded that the conscientious objector statute was not "a law respecting an establishment of religion within the meaning of the First Amendment."¹⁵⁷ This opinion suggests that the military necessity doctrine should preclude judicial invalidation of congressional efforts to accommodate servicemembers' free exercise interests. While the *Welsh* Court did not adopt Justice White's rationale, the case was decided at a time when the military necessity doctrine was out of favor.¹⁵⁸

¹⁵² Representative Schroeder, who introduced the measure in the House, noted the amendment "arises out of the concerns of Sikhs and Jews." 133 Cong. Rec. H3342 (daily ed. May 3, 1987) (statement of Rep. Schroeder).

¹⁵³ See *supra* note 117 and accompanying text.

¹⁵⁴ 398 U.S. 333 (1970). Chief Justice Burger and Justice Stewart joined in Justice White's dissent.

¹⁵⁵ U.S. Const. art. I, § 8, cl. 12.

¹⁵⁶ *Welsh*, 398 U.S. at 371 (White, J., dissenting).

¹⁵⁷ *Id.*

¹⁵⁸ The *Welsh* decision came just one year after the Supreme Court delivered its stinging indictment of the military's treatment of servicemembers' constitutional rights in *O'Callahan v. Parker*, 395 U.S. 258 (1969) (holding that in peacetime, a servicemember could not be court-martialed for an offense unless that offense was service connected), overturned, *Solorio v. United States*, 97 L. Ed. 2d 364 (1987). See generally Kaczynski, *supra* note 17.

In a memorandum prepared for the Joint Service Study Group, Professor Pfeffer advanced an argument similar to Justice White's. Professor Pfeffer observed that "the 'peculiar and special relationship of the soldier and his superiors,' and the primary reliance upon the military for national self-preservation can reasonably be argued as justifying a broad Congressional grant of discretionary power to the Defense Department as to which religious practices should be allowed and which not."¹⁵⁹ While Professor Pfeffer noted that "some standards or at least guidelines must be imposed by Congress,"¹⁶⁰ the legislation's "neat and conservative" criterion would likely satisfy this requirement. Professor Pfeffer concluded that "while the Supreme Court would require some explanation why" selective accommodation was authorized, "it would accept any non-frivolous response (i.e., beyond *de minimis*) and would sanction substantial reliance upon the Defense Department's judgment."¹⁶¹

The Joint Service Study Group specifically addressed the issue of whether the military could constitutionally allow some religious-based exceptions to its uniform and appearance standards while denying others. The Study Group concluded that selective accommodation "appears defensible if (1) distinctions among religious practices are based on purely secular considerations, (2) evidence shows the distinctions are based on reasonable military requirements, and (3) the distinctions are made along clear lines not subject to differing interpretations and incremental expansion by courts."¹⁶² If the judiciary were to rely upon this test, the religious apparel accommodation statute would likely pass constitutional muster. The legislation makes distinctions among religious apparel based on the secular considerations of non-interference and neat and conservative appearance. Under the *Rostker* analysis, the judiciary should defer to Congress on the issue of whether such distinctions are based on reasonable military require-

¹⁵⁹ Memorandum from Leo Pfeffer to the Joint Service Study Group (Jan. 11, 1985), reprinted in Joint Study, *supra* note 7, at A 70.

¹⁶⁰ *Id.*

¹⁶¹ *Id.* at A 72.

¹⁶² Joint Study, *supra* note 7, at I 25. In reaching this conclusion, the Study Group relied upon *Goldman*, 734 U.S. 1531 (D.C. Cir. 1984); *Gillette v. United States*, 401 U.S. 437 (1971) (upholding application of conscientious objector status to those who oppose all war on religious grounds while denying such status to those who oppose only U.S. military involvement in Vietnam); and *Larson v. Valente*, 463 U.S. 228 (1982) (holding that the central tenet of the establishment clause is that government shall not favor one religion over any other). The Joint Study Group's report, which was prepared before the Supreme Court's *Goldman* decision, added that the case for selective accommodation would be particularly strong "if courts grant the same degree of deference to military decisions to differentiate among religious practices along secular and functional lines as they grant generally to other internal military decisions." Joint Study, *supra* note 7, at I 25.

ments. Finally, the adoption of specific regulations, as the legislation directs, would satisfy the third criterion.

The U.S. Court of Appeals for the Second Circuit has also approved of expansive measures to accommodate servicemembers' free exercise of religion. In *Katcoff v. Marsh*,¹⁶³ the court held that the Federal Government did not violate the establishment clause by providing military chaplains to further servicemembers' free exercise interests.¹⁶⁴ The court based its decision largely on the military necessity doctrine. Citing *Rostker*, the court noted that any doubts about the chaplain program's constitutionality "should be resolved in favor of deference to the military's exercise of its discretion."¹⁶⁵ The court also recognized Congress's power to take actions to protect servicemembers' free exercise of religion.¹⁶⁶ Thus the court concluded that when evaluating an establishment clause challenge to the military chaplain program, the judiciary "must take into account the deference required to be given to Congress' exercise of its War Power and the necessity of recognizing Free Exercise rights of military personnel."¹⁶⁷

To the same extent that the military necessity doctrine permits the Department of Defense to prohibit servicemembers from wearing religious apparel while in uniform, it should also permit Congress to employ a "neat and conservative," noninterference standard to selectively accommodate religious apparel requirements. As demonstrated by *Goldman*, the military necessity doctrine has become a controlling principle of constitutional law; it will even overcome a free exercise of religion challenge. The religious apparel accommodation statute should therefore survive constitutional scrutiny.

V. CONCLUSION

Goldman was one of several recent cases which have largely insulated the military from judicial review.¹⁶⁸ Because of this self-

¹⁶³755 F.2d 233 (1985).

¹⁶⁴While holding that in general the chaplaincy did not violate the establishment clause, the court remanded the case to the district court for determination of whether government financing of military chaplains in large urban areas where civilian clergy and facilities were available violated the establishment clause. *Id.* at 237-38. Judge Measkill dissented from the portion of the majority's decision requiring remand and indicated that he would have upheld the chaplain program in its entirety. *Id.* at 238-39 (Measkill, J., dissenting in part).

¹⁶⁵*Id.* at 234.

¹⁶⁶*Id.* at 233-34.

¹⁶⁷*Id.* at 235.

¹⁶⁸See, e.g., *United States v. Johnson*, 107 S. Ct. 2063 (1987) (reaffirming *Feres v. United States*, 340 U.S. 135 (1950), while barring recovery for servicemember's death occurring due to civilian federal employee's negligence); *Chappell v. Wallace*, 462 U.S. 296 (1982) (protecting military officers from constitutionally based tort suits brought by their subordinates); *Mendrano v. Smith*, 797 F.2d 1538 (10th Cir. 1986) (rejecting

imposed judicial restraint, congressional action to protect servicemembers' liberty interests is increasingly necessary and likely. The Joint Service Study Group identified a number of areas where current military regulations conflict with some religious groups' tenets.¹⁶⁹ Each of these areas of conflict is a potential subject of future legislation. The federal judiciary will likely refuse to interfere with congressional action designed to protect servicemembers' free exercise of religion. Just as the military necessity doctrine allows the Department of Defense to limit servicemembers' free exercise rights, it will also allow Congress to selectively accommodate servicemembers' religious practices.

The balance between servicemembers' freedom to practice their religions and the military's interests in uniformity, esprit de corps, and mission accomplishment will now be determined through the interaction of Congress, the executive branch, and the military services. The first interaction between these forces resulted in a congressionally-mandated expansion of servicemembers' free exercise rights. An ironic result of the Supreme Court's deference to the military in *Goldman* will thus be a greater accommodation of servicemembers' religious practices.

constitutional challenge to military criminal justice system). The U.S. Court of Appeals for the Third Circuit has held that, although damages claims are barred, "claims for injunctive relief against the military are still viable." *Jorden v. National Guard Bureau*, 799 F.2d 99, 109 (3d Cir. 1986), cert. denied, 108 S. Ct. 66 (1987). The U.S. Court of Appeals for the Fifth Circuit cautioned, however, that "suits for injunctive relief, like those for monetary damages, must be carefully regulated in order to prevent intrusion of the courts into the military structure." *Crawford v. Texas Army Nat'l Guard*, 794 F.2d 1034, 1036-37 (5th Cir. 1986).

¹⁶⁹The Joint Study Group identified four major areas of potential conflict between religious practices and military regulations: (1) dress and appearance requirements; (2) Sabbath and ritual requirements; (3) diet requirements; and (4) medical considerations. See Joint Study, *supra* note 7, at vii-ix.

CUMULATIVE INDEX, VOLS. 112-121

I. AUTHOR INDEX

Arquilla, LTC Alfred F., *Family Support, Child Custody, and Paternity*, Vol. 112, at 17.

Beasley, MAJ John H., *USMA Honor System—A Due Process Hybrid*, *The*, Vol. 118, at 187.

Bond, Dean James E., *Fifteenth Kenneth J. Hodson Lecture in Criminal Law: A Criminal Justice System Divided Against Itself*, *The*, Vol. 113, at 17.

Borek, COL Ted B., *Legal Services During War*, Vol. 120, at 19.

Bryant, MAJ Thomas L., & MAJ Charles W. Hemingway, *Preventive Medicine and Preventive Law: Fort Stewart's "Corporate Fitness" Program for Senior Officers*, Vol. 112, at 211.

Carrico, Harry L., *Seventeenth Annual Kenneth J. Hodson Lecture: George Mason, John Marshall, and the Constitution*, *The*, Vol. 121, at 1.

Carroll, MAJ Rita R., *Insanity Defense Reform*, Vol. 114, at 183.

Carter, MAJ Kevin W., *Fraternization*, Vol. 113, at 61.

Chute, CPT Alan D., *Due Process and Unavailable Evidence*, Vol. 118, at 93.

Cooper, CPT Scott D., *Handling Tobacco-Related Discrimination Cases in the Federal Government*, Vol. 118, at 143.

Cox III, Honorable Walter T., *Army, the Courts, and the Constitution: The Evolution of Military Justice*, *The*, Vol. 118, at 1.

Deardorff, CPT Stephen E., *Informed Consent, Termination of Medical Treatment, and the Federal Tort Claims Act—A New Proposal for the Military Health Care System*, Vol. 115, at 1.

Delorio, MAJ Dominick J., *Uniform Gifts to Minors Act*, Vol. 112, at 159.

Ditton, CPT Michael H., *Doctrine of Primary Jurisdiction and Federal Procurement Fraud: The Role of the Boards of Contract Appeals*, *The*, Vol. 119, at 99.

Euler, LTC John L., *Personal Liability of Military Personnel for Actions Taken in the Course of Duty*, Vol. 113, at 137.

Farhy, BG Ben-Zion, *Current Legal Trends in the Area Administered by Israel*, Vol. 113, at 47.

Feeney, MAJ Thomas J., *Expert Psychological Testimony on Credibility Issues*, Vol. 115, at 121.

Fields, Jr., Honorable Louis G., *Third Annual Waldemar A. Solf Lecture in International Law: Contemporary Terrorism and the Rule of Law*, The, Vol. 113, at 1.

Gaydos, MAJ Larry A., *Prosecutorial Guide to Court-Martial Sentencing*, A, Vol. 114, at 1.

Gildea, CPT James J., *Computer-Assisted Wills Program*, Vol. 112, at 227.

Grasso, LTC Carl T., *Statute of Limitations As Applied to Medical Malpractice Actions Brought Under the Federal Tort Claims Act*, The, Vol. 117, at 1.

Hagan, LTC William R., *Overlooked Textbooks Jettison Some Durable Military Law Legends*, Vol. 113, at 163.

Hansen, BG Donald W., *Practical Pointers for Legal Assistance Officers: A View From the Top*, Vol. 112, at 3.

Hasty III, CPT Thomas J., *Military Child Advocacy Programs: Confronting Child Maltreatment in the Military Community*, Vol. 112, at 67.

Hausken, CPT Gary L., *Value of a Secret: Compensation for Imposition of Secrecy Orders Under the Invention Secrecy Act*, The, Vol. 119, at 201.

Hawkins, LCDR E. Roy, *Comment: Griffen v. Griffiss Air Force Base: Qualified Immunity and the Commander's Liability for Open Houses on Military Bases*, Vol. 117, at 279.

Hayn, CPT L. Sue, *Civil Liability of Soldiers for the Acts of Their Minor Children*, The, Vol. 115, at 179.

Hely, Jr., MAJ Joseph W., *Primer on Analyzing Oil and Gas Leases From the Landowner's Viewpoint*, Vol. 112, at 289.

Hemingway, MAJ Charles W., *Practical Considerations in Handling Army Nonsupport Cases*, Vol. 112, at 105.

Hemingway, MAJ Charles W., & MAJ Thomas L. Bryant, *Preventive Medicine and Preventive Law: Fort Stewart's "Corporate Fitness" Program for Senior Officers*, Vol. 112, at 211.

Hohensee, CPT James M., *Fair Use Doctrine in Copyright: A Growing Concern for Judge Advocates*, The, Vol. 119, at 155.

Holzer, Peter, *Practical Guide to German Divorce Law*, Vol. 112, at 121.

Hooper, MAJ Stephen R., *Soldiers' and Sailors' Civil Relief Act of 1940 as Applied in Support Litigation: A Support Enforcement Attorney's Perspective*, The, Vol. 112, at 93.

Hurley, Jr., CDR George E., *Government Contractor Liability in Military Design Defect Cases: The Need for Judicial Intervention*, Vol. 117, at 219.

Ingold, MAJ Bernard P., *Recent Reforms in Divorce Taxation: For Better or For Worse?*, Vol. 120, at 203.

Jentzer, CPT L. D., *Summary Courts and the Disposition of Deceased Soldiers' Effects*, Vol. 112, at 185.

Maher, CPT Christopher M., *Right to a Fair Trial in Criminal Cases Involving the Introduction of Classified Information*, The, Vol. 120, at 83.

Maizel, CPT Donna C., *Trade Secrets and Technical Data Rights in Government Contracts*, Vol. 114, at 225.

McClelland, CPT Gregory A., *Problem of Jurisdiction Over Civilians Accompanying the Forces Overseas—Still With Us*, The, Vol. 117, at 153.

Meyer, CPT Kent R., *Continuing Powers of Attorney: A Military Use*, Vol. 112, at 257.

Milhizer, CPT Eugene R., *Necessity and the Military Justice System: A Proposed Special Defense*, Vol. 121, at 95.

Morris, CPT John R., *Rights Warnings in the Military: An Article 31(b) Update*, Vol. 115, at 261.

Morton, CPT Richard M., *Non-Probate and Probate Administration of Small Estates Involving Deaths of Military Personnel: Thoughts of a Probate Judge*, Vol. 112, at 175.

Novak, CPT Eva M., *Army Physical Disability System*, The, Vol. 112, at 273.

O'Brien, COL Maurice J., *Expedited Procedures for Research and Development Contracting*, Vol. 117, at 253.

O'Neil, Robert M., *Tenth Charles L. Decker Lecture in Administrative and Civil Law: Civil Liberty and Military Necessity—Some Preliminary Thoughts on Goldman v. Weinberger*, The, Vol. 113, at 31.

Ojeda, Omar I., *Dissolution of Marriage in Japan*, Vol. 112, at 149.

Parkerson, Jr., MAJ John E., *International Legal Implications of the Strategic Defense Initiative*, Vol. 116, at 67.

Raezer, CPT Timothy A., *Needed Weapons in the Army's War on Drugs: Electronic Surveillance and Informants*, Vol. 116, at 1.

Rodearmel, CPT David C., *Military Law in Communist China: Development, Structure and Function*, Vol. 119, at 1.

Ross, CPT John L., *Confrontation and Residual Hearsay: A Critical Examination, and a Proposal for Military Courts*, Vol. 118, at 31.

Rouse, MAJ Lawrence E., *Disposition of the Current Stockpile of Chemical Munitions and Agents, The*, Vol. 121, at 17.

Shiles, Jerry E., *Rights of Family Members Who Separate While Residing in the Federal Republic of Germany*, Vol. 112, at 131.

Smith, CPT Daniel, *New Protections for Victims of International Armed Conflicts: The Proposed Ratification of Protocol II by the United States*, Vol. 120, at 59.

Smith, LTC James B., *Tying the Knot at Sea*, Vol. 112, at 155.

Sullivan, 1LT Dwight, *Congressional Response to Goldman v. Weinberger, The*, Vol. 121, at 125.

Sullivan, MAJ Mark E., *Developing a Legal Assistance SOP*, Vol. 112, at 249.

Taylor, Thomas W., *Plain English for Army Lawyers*, Vol. 118, at 217.

Vowell, CPT Denise K., *To Determine an Appropriate Sentence: Sentencing in the Military Justice System*, Vol. 114, at 87.

Wagner, MAJ Carl M., *United States v. Kubrick: Scope and Application*, Vol. 120, at 139.

Wallace II, COL John K., *Japanese Prison Camps: Diary of a Survivor*, Vol. 113, at 219.

Wiener, COL Frederick Bernays, *Comment—The Years of MacArthur, Volume III: MacArthur Unjustifiably Accused of Meting Out "Victors' Justice" in War Crimes Cases*, Vol. 113, at 203.

Wittmayer, MAJ Chris G., *Rule for Courts-Martial 707: The 1984 Manual for Courts-Martial Speedy Trial Rule*, Vol. 116, at 221.

Wright, CPT Douglas R., *How to Improve Military Search and Seizure Law*, Vol. 116, at 157.

Zillman, Donald N., *Sixteenth Annual Edward H. Young Lecture: A Bicentennial View of Military—Civilian Relations, The*, Vol. 120, at 1.

II. SUBJECT INDEX

—A—

ADMINISTRATIVE LAW

Handling Tobacco-Related Discrimination Cases in the Federal Government, by *CPT Scott D. Cooper*, Vol. 118, at 143.

APPEARANCE

Congressional Response to *Goldman v. Weinberger*, The, by *1LT Dwight Sullivan*, Vol. 121, at 125.

ARTICLE 31(b), U.C.M.J.

Rights Warnings in the Military: An Article 31(b) Update, by *CPT John R. Morris*, Vol. 115, at 261.

AUTOMATION

Computer-Assisted Wills Program, by *CPT James J. Gildea*, Vol. 112, at 227.

AWARD

Professional Writing Award for 1985, Vol. 113, at vi.

Professional Writing Award for 1986, Vol. 118, at v.

—C—

CHEMICALS

Disposition of the Current Stockpile of Chemical Munitions and Agents, The, by *Lawrence E. Rouse*, Vol. 121, at 17.

CHILD ADVOCACY PROGRAMS

Military Child Advocacy Programs: Confronting Child Maltreatment in the Military Community, by *CPT Thomas J. Hasty III*, Vol. 112, at 67.

CHILDREN

Civil Liability of Soldiers for the Acts of Their Minor Children, The, by *CPT L. Sue Hayn*, Vol. 115, at 179.

Family Support, Child Custody, and Paternity, by *LTC Alfred F. Arquilla*, Vol. 112, at 17.

Military Child Advocacy Programs: Confronting Child Maltreatment in the Military Community, by *CPT Thomas J. Hasty III*, Vol. 112, at 67.

Practical Considerations in Handling Army Nonsupport Cases, by MAJ Charles W. Hemingway, Vol. 112, at 105.

CHINA

Military Law in Communist China: Development, Structure and Function, by CPT David C. Rodearmel, Vol. 119, at 1.

CIVIL LIBERTY

Tenth Charles L. Decker Lecture in Administrative and Civil Law: Civil Liberty and Military Necessity—Some Preliminary Thoughts on *Goldman v. Weinberger*, The, by Mr. Robert M. O'Neil, Vol. 113, at 31.

CIVILIANS

Problem of Jurisdiction Over Civilians Accompanying The Forces Overseas—Still With Us, The, by CPT Gregory A. McClelland, Vol. 117, at 153.

CLAIMS

Comment: *Griffen v. Griffiss Air Force Base*: Qualified Immunity and the Commander's Liability for Open Houses on Military Bases, by LCDR E. Roy Hawkens, Vol. 117, at 279.

Government Contractor Liability in Military Design Defect Cases: The Need for Judicial Intervention, by CDR George E. Hurley, Jr., Vol. 117, at 219.

Informed Consent, Termination of Medical Treatment, and the Federal Tort Claims Act—A New Proposal for the Military Health Care System, by CPT Stephen E. Deardorff, Vol. 115, at 1.

Personal Liability of Military Personnel for Actions Taken in the Course of Duty, by LTC John L. Euler, Vol. 113, at 137.

Statute of Limitations as Applied to Medical Malpractice Actions Brought Under the Federal Tort Claims Act, The, by LTC Carl T. Grasso, Vol. 117, at 1.

United States v. Kubrick: Scope and Application, by MAJ Carl M. Wagner, Vol. 120, at 139.

CLASSIFIED INFORMATION

Right to a Fair Trial in Criminal Cases Involving the Introduction of Classified Information, The, by CPT Christopher M. Maher, Vol. 120, at 83.

CONFRONTATION CLAUSE

Confrontation and Residual Hearsay: A Critical Examination, and a Proposal for Military Courts, by *CPT John L. Ross*, Vol. 118, at 31.

CONSENT

Informed Consent, Termination of Medical Treatment, and the Federal Tort Claims Act—A New Proposal for the Military Health Care System, by *CPT Stephen E. Deardorff*, Vol. 115, at 1.

CONSTITUTION, U.S.

Army, the Courts, and the Constitution: The Evolution of Military Justice, The, by *Honorable Walter T. Cox III*, Vol. 118, at 1.

Seventeenth Annual Kenneth J. Hodson Lecture: George Mason, John Marshall, and the Constitution, The, by *Harry L. Carrico*, Vol. 121, at 1.

Sixteenth Annual Edward H. Young Lecture: A Bicentennial View of Military—Civilian Relations, The, by *Donald N. Zillman*, Vol. 120, at 1.

CONTRACTORS

Government Contractor Liability in Military Design Defect Cases: The Need for Judicial Intervention, by *CDR George E. Hurley, Jr.*, Vol. 117, at 219.

CONTRACTS

Doctrine of Primary Jurisdiction and Federal Procurement Fraud: The Role of the Boards of Contract Appeals, The, by *CPT Michael H. Ditton*, Vol. 119, at 99.

Expedited Procedures for Research and Development Contracting, by *COL Maurice J. O'Brien*, Vol. 117, at 253.

Trade Secrets and Technical Data Rights in Government Contracts, by *CPT Donna C. Maizel*, Vol. 114, at 225.

COPYRIGHT

Fair Use Doctrine in Copyright: A Growing Concern for Judge Advocates, The, by *CPT James M. Hohensee*, Vol. 119, at 155.

COURTS-MARTIAL

Prosecutorial Guide to Court-Martial Sentencing, A, by *MAJ Larry A. Gaydos*, Vol. 114, at 1.

Right to a Fair Trial in Criminal Cases Involving the Introduction

of Classified Information, The, by *CPT Christopher M. Maher*, Vol. 120, at 83.

Rule for Courts-Martial 707: The 1984 Manual for Courts-Martial Speedy Trial Rule, by *MAJ Chris G. Wittmayer*, Vol. 116, at 221.

CRIMINAL LAW

Fifteenth Kenneth J. Hodson Lecture in Criminal Law: A Criminal Justice System Divided Against Itself, The, by *Dean James E. Bond*, Vol. 113, at 17.

Necessity and the Military Justice System: A Proposed Special Defense, by *CPT Eugene R. Milhizer*, Vol. 121 at 95.

—D—

DATA

Trade Secrets and Technical Data Rights in Government Contracts, by *CPT Donna C. Maizel*, Vol. 114, at 225.

DISABILITY

Army Physical Disability System, The, by *CPT Eva M. Novak*, Vol. 112, at 273.

DIVORCE

Dissolution of Marriage in Japan, by *Omar I. Ojeda*, Vol. 112, at 149.

Practical Guide to German Divorce Law, A, by *Peter Holzer*, Vol. 112, at 121.

Recent Reforms in Divorce Taxation: For Better or For Worse?, by *MAJ Bernard P. Ingold*, Vol. 120, at 203.

Rights of Family Members Who Separate While Residing in the Federal Republic of Germany, by *Jerry E. Shiles*, Vol. 112, at 131.

DRUGS

Needed Weapons in the Army's War on Drugs: Electronic Surveillance and Informants, by *CPT Timothy A. Raezer*, Vol. 116, at 1.

—E—

EDUCATION

Plain English for Army Lawyers, by *Thomas W. Taylor*, Vol. 118, at 217.

ELECTRONIC SURVEILLANCE

Needed Weapons in the Army's War on Drugs: Electronic Surveillance and Informants, by *CPT Timothy A. Raezer*, Vol. 116, at 1.

ESTATE PLANNING

Non-Probate and Probate Administration of Small Estates Involving Deaths of Military Personnel: Thoughts of a Probate Judge, by *CPT Richard M. Morton*, Vol. 112, at 175.

Summary Courts and the Disposition of Deceased Soldiers' Effects, by *CPT L. D. Jentzer*, Vol. 112, at 185.

Uniform Gifts to Minors Act, by *MAJ Dominick J. Delorio*, Vol. 112, at 159.

EVIDENCE

Due Process and Unavailable Evidence, by *CPT Alan D. Chute*, Vol. 118, at 93.

How to Improve Military Search and Seizure Law, by *CPT Douglas R. Wright*, Vol. 116, at 157.

Insanity Defense Reform, by *MAJ Rita R. Carroll*, Vol. 114, at 183.

To Determine an Appropriate Sentence: Sentencing in the Military Justice System, by *CPT Denise K. Vowell*, Vol. 114, at 87.

—F—**FAIR USE DOCTRINE**

Fair Use Doctrine in Copyright: A Growing Concern for Judge Advocates, The, by *CPT James M. Hohensee*, Vol. 119, at 155.

FAMILY

Problem of Jurisdiction Over Civilians Accompanying the Forces Overseas—Still With Us, The, by *CPT Gregory A. McClelland*, Vol. 117, at 153.

FAMILY LAW

Family Support, Child Custody, and Paternity, by *LTC Alfred F. Arquilla*, Vol. 112, at 17.

Practical Considerations in Handling Army Nonsupport Cases, by *MAJ Charles W. Hemingway*, Vol. 112, at 105.

Rights of Family Members Who Separate While Residing in the Federal Republic of Germany, by *Jerry E. Shiles*, Vol. 112, at 131.

Soldiers' and Sailors' Civil Relief Act of 1940 as Applied in Support Litigation: A Support Enforcement Attorney's Perspective, The, by MAJ Stephen R. Hooper, Vol. 112, at 93.

FEDERAL TORT CLAIMS ACT

United States v. Kubrick: Scope and Application, by MAJ Carl M. Wagner, Vol. 120, at 139.

FIRST AMENDMENT

Congressional Response to *Goldman v. Weinberger*, The, by 1LT Dwight Sullivan, Vol. 121, at 125.

FOREIGN LAW

Military Law in Communist China: Development, Structure and Function, by CPT David C. Rodearmel, Vol. 119, at 1.

FRATERNIZATION

Fraternization, by MAJ Kevin W. Carter, Vol. 113, at 61.

FRAUD

Doctrine of Primary Jurisdiction and Federal Procurement Fraud: The Role of the Boards of Contract Appeals, The, by CPT Michael H. Ditton, Vol. 119, at 99.

—G—

GENEVA CONVENTIONS

New Protections for Victims of International Armed Conflicts: The Proposed Ratification of Protocol II by the United States, by CPT Daniel Smith, Vol. 120, at 59.

GERMAN LAW

Practical Guide to German Divorce Law, A, by Peter Holzer, Vol. 112, at 121.

Rights of Family Members Who Separate While Residing in the Federal Republic of Germany, by Jerry E. Shiles, Vol. 112, at 131.

GIFTS

Uniform Gifts to Minors Act, by MAJ Dominick J. Delorio, Vol. 112, at 159.

—H—**HEARSAY**

Confrontation and Residual Hearsay: A Critical Examination, and a Proposal for Military Courts, by *CPT John L. Ross*, Vol. 118, at 31.

HISTORY

Army, the Courts, and the Constitution: The Evolution of Military Justice, The, by *Honorable Walter T. Cox III*, Vol. 118, at 1.

Overlooked Textbooks Jettison Some Durable Military Law Legends, by *LTC William R. Hagan*, Vol. 113, at 163.

Sixteenth Annual Edward H. Young Lecture: A Bicentennial View of Military—Civilian Relations, The, by *Donald N. Zillman*, Vol. 120, at 1.

USMA Honor System—A Due Process Hybrid, The, by *MAJ John H. Beasley*, Vol. 118, at 187.

HONOR SYSTEM

USMA Honor System—A Due Process Hybrid, The, by *MAJ John H. Beasley*, Vol. 118, at 187.

HUMANITARIAN LAW

New Protections for Victims of International Armed Conflicts: The Proposed Ratification of Protocol II by the United States, by *CPT Daniel Smith*, Vol. 120, at 59.

—I—**INFORMANTS**

Needed Weapons in the Army's War on Drugs: Electronic Surveillance and Informants, by *CPT Timothy A. Raezer*, Vol. 116, at 1.

INSANITY DEFENSE

Insanity Defense Reform, by *MAJ Rita R. Carroll*, Vol. 114, at 183.

INTERNATIONAL LAW

International Legal Implications of the Strategic Defense Initiative, by *MAJ John E. Parkerson, Jr.*, Vol. 116, at 67.

Third Annual Waldemar A. Solf Lecture in International Law: Contemporary Terrorism and the Rule of Law, The, by *Honorable Louis G. Fields, Jr.*, Vol. 113, at 1.

INVENTION SECRECY ACT

Value of a Secret: Compensation for Imposition of Secrecy Orders Under the Invention Secrecy Act, The, by *CPT Gary L. Hausken*, Vol. 119, at 201.

ISRAEL

Current Legal Trends in the Area Administered by Israel, by *BG Ben-Zion Farhy*, Vol. 113, at 47.

—J—**JAPAN**

Dissolution of Marriage in Japan, by *Omar I. Ojeda*, Vol. 112, at 149.

Japanese Prison Camps: Diary of a Survivor, by *COL John K. Wallace*, II, Vol. 113, at 219.

JUDGE ADVOCATES

Legal Services During War, by *COL Ted B. Borek*, Vol. 120, at 19.

Practical Pointers for Legal Assistance Officers: A View From the Top, by *BG Donald W. Hansen*, Vol. 112, at 3.

JURISDICTION

Doctrine of Primary Jurisdiction and Federal Procurement Fraud: The Role of the Boards of Contract Appeals, The, by *CPT Michael H. Dittin*, Vol. 119, at 99.

Problem of Jurisdiction Over Civilians Accompanying the Forces Overseas—Still With Us, The, by *CPT Gregory A. McClelland*, Vol. 117, at 153.

—L—**LAW OF WAR**

Comment—The Years of MacArthur, Volume III: MacArthur Unjustifiably Accused of Meting Out "Victors' Justice" in War Crimes Cases, by *COL Frederick Bernays Wiener*, Vol. 113, at 203.

New Protections for Victims of International Armed Conflicts: The Proposed Ratification of Protocol II by the United States, by *CPT Daniel Smith*, Vol. 120, at 59.

LEASES

Primer on Analyzing Oil and Gas Leases From the Landowner's Viewpoint, by *MAJ Joseph W. Hely, Jr.*, Vol. 112, at 289.

LECTURES

Fifteenth Kenneth J. Hodson Lecture in Criminal Law: A Criminal Justice System Divided Against Itself, The, by *Dean James E. Bond*, Vol. 113, at 17.

Seventeenth Annual Kenneth J. Hodson Lecture: George Mason, John Marshall, and the Constitution, The, by *Harry L. Carrico*, Vol. 121, at 1.

Tenth Charles L. Decker Lecture in Administrative and Civil Law: Civil Liberty and Military Necessity—Some Preliminary Thoughts on *Goldman v. Weinberger*, The, by *Robert M. O'Neil*, Vol. 113, at 31.

Third Annual Waldemar A. Solf Lecture in International Law: Contemporary Terrorism and the Rule of Law, The, by *Honorable Louis G. Fields, Jr.*, Vol. 113, at 1.

LEGAL ASSISTANCE

Army Physical Disability System, The, by *CPT Eva M. Novak*, Vol. 112, at 273.

Computer-Assisted Wills Program, by *CPT James J. Gildea*, Vol. 112, at 227.

Continuing Powers of Attorney: A Military Use, by *CPT Kent R. Meyer*, Vol. 112, at 257.

Developing a Legal Assistance SOP, by *MAJ Mark E. Sullivan*, Vol. 112, at 249.

Legal Services During War, by *COL Ted B. Borek*, Vol. 120, at 19.

Practical Considerations in Handling Army Nonsupport Cases, by *MAJ Charles W. Hemingway*, Vol. 112, at 105.

Practical Pointers for Legal Assistance Officers: A View From the Top, by *BG Donald W. Hansen*, Vol. 112, at 3.

Preventive Medicine and Preventive Law: Fort Stewart's "Corporate Fitness" Program for Senior Officers, by *MAJ Thomas L. Bryant, & MAJ Charles W. Hemingway*, Vol. 112, at 211.

Soldiers' and Sailors' Civil Relief Act of 1940 as Applied in Support Litigation: A Support Enforcement Attorney's Perspective, The, by *MAJ Stephen R. Hooper*, Vol. 112, at 93.

LIABILITY

Civil Liability of Soldiers for the Acts of Their Minor Children, The, by *CPT L. Sue Hayn*, Vol. 115, at 179.

Comment: Griffen v. Griffiss Air Force Base: Qualified Immunity and the Commander's Liability for Open Houses on Military Bases, by *LCDR E. Roy Hawkens*, Vol. 117, at 279.

Government Contractor Liability in Military Design Defect Cases: The Need for Judicial Intervention, by *CDR George E. Hurley, Jr.*, Vol. 117, at 219.

—M—

MACARTHUR

Comment—The Years of MacArthur, Volume III: MacArthur Unjustifiably Accused of Meting Out "Victors' Justice" in War Crimes Cases, by *COL Frederick Bernays Wiener*, Vol. 113, at 203.

MALPRACTICE

Statute of Limitations As Applied to Medical Malpractice Actions Brought Under the Federal Tort Claims Act, The, by *LTC Carl T. Grasso*, Vol. 117, at 1.

MANUAL FOR COURTS-MARTIAL

Rule for Courts-Martial 707: The 1984 Manual for Courts-Martial Speedy Trial Rule, by *MAJ Chris G. Wittmayer*, Vol. 116, at 221.

MARRIAGE

Dissolution of Marriage in Japan, by *Omar I. Ojeda*, Vol. 112, at 149.

Tying the Knot at Sea, by *LTC James B. Smith*, Vol. 112, at 155.

MEDICAL

Informed Consent, Termination of Medical Treatment, and the Federal Tort Claims Act—A New Proposal for the Military Health Care System, by *CPT Stephen E. Deardorff*, Vol. 115, at 1.

Statute of Limitations as Applied to Medical Malpractice Actions Brought Under the Federal Tort Claims Act, The, by *LTC Carl T. Grasso*, Vol. 117, at 1.

MILITARY JUSTICE

Army, the Courts, and the Constitution: The Evolution of Military Justice, The, by *Honorable Walter T. Cox III*, Vol. 118, at 1.

Due Process and Unavailable Evidence, by *CPT Alan D. Chute*, Vol. 118, at 93.

To Determine an Appropriate Sentence: Sentencing in the Military Justice System, by *CPT Denise K. Vowell*, Vol. 114, at 87.

MILITARY LAW

Overlooked Textbooks Jettison Some Durable Military Law Legends,
by LTC William R. Hagan, Vol. 113, at 163.

MILITARY RULES OF EVIDENCE

How to Improve Military Search and Seizure Law, *by CPT Douglas R. Wright*, Vol. 116, at 157.

—O—**OPEN HOUSE**

Comment: Griffen v. Griffiss Air Force Base: Qualified Immunity and the Commander's Liability for Open Houses on Military Bases, *by LCDR E. Roy Hawkens*, Vol. 117, at 279.

—P—**PATENTS**

Value of a Secret: Compensation for Imposition of Secrecy Orders Under the Invention Secrecy Act, The, *by CPT Gary L. Hausken*, Vol. 119, at 201.

PATERNITY

Family Support, Child Custody, and Paternity, *by LTC Alfred F. Arquilla*, Vol. 112, at 17.

PERSONNEL

Fraternization, *by MAJ Kevin W. Carter*, Vol. 113, at 61.

Personal Liability of Military Personnel for Actions Taken in the Course of Duty, *by LTC John L. Euler*, Vol. 113, at 137.

PHYSICAL DISABILITY

Army Physical Disability System, The, *by CPT Eva M. Novak*, Vol. 112, at 273.

PHYSICAL FITNESS

Preventive Medicine and Preventive Law: Fort Stewart's "Corporate Fitness" Program for Senior Officers, *by MAJ Thomas L. Bryant, & MAJ Charles W. Hemingway*, Vol. 112, at 211.

POWER OF ATTORNEY

Continuing Powers of Attorney: A Military Use, *by CPT Kent R. Meyer*, Vol. 112, at 257.

PRISONER OF WAR

Japanese Prison Camps: Diary of a Survivor, by *COL John K. Wallace II*, Vol. 113, at 219.

PROPERTY

Non-Probate and Probate Administration of Small Estates Involving Deaths of Military Personnel: Thoughts of a Probate Judge, by *CPT Richard M. Morton*, Vol. 112, at 175.

Primer on Analyzing Oil and Gas Leases From the Landowner's Viewpoint, by *MAJ Joseph W. Hely, Jr.*, Vol. 112, at 289.

Summary Courts and the Disposition of Deceased Soldiers' Effects, by *CPT L. D. Jentzer*, Vol. 112, at 185.

Uniform Gifts to Minors Act, by *MAJ Dominick J. Delorio*, Vol. 112, at 159.

PSYCHOLOGY

Expert Psychological Testimony on Credibility Issues, by *MAJ Thomas J. Feeney*, Vol. 115, at 121.

—R—**RELIGION**

Congressional Response to *Goldman v. Weinberger*, The, by *ILT Dwight Sullivan*, Vol. 121, at 125.

RESEARCH AND DEVELOPMENT

Expedited Procedures for Research and Development Contracting, by *COL Maurice J. O'Brien*, Vol. 117, at 253.

—S—**SEARCH AND SEIZURE**

How to Improve Military Search and Seizure Law, by *CPT Douglas R. Wright*, Vol. 116, at 157.

SECURITY

International Legal Implications of the Strategic Defense Initiative, by *MAJ John E. Parkerson, Jr.*, Vol. 116, at 67.

Right to a Fair Trial in Criminal Cases Involving the Introduction of Classified Information, The, by *CPT Christopher M. Maher*, Vol. 120, at 83.

Value of a Secret: Compensation for Imposition of Secrecy Orders Under the Invention Secrecy Act, The, by *CPT Gary L. Hausken*, Vol. 119, at 201.

SELF-INCRIMINATION

Rights Warnings in the Military: An Article 31(b) Update, by *CPT John R. Morris*, Vol. 115, at 261.

SENTENCING

Prosecutorial Guide to Court-Martial Sentencing, A, by *MAJ Larry A. Gaydos*, Vol. 114, at 1.

To Determine an Appropriate Sentence: Sentencing in the Military Justice System, by *CPT Denise K. Vowell*, Vol. 114, at 87.

SEPARATION

Rights of Family Members Who Separate While Residing in the Federal Republic of Germany, by *Jerry E. Shiles*, Vol. 112, at 131.

SMOKING

Handling Tobacco-Related Discrimination Cases in the Federal Government, by *CPT Scott D. Cooper*, Vol. 118, at 143.

SOLDIERS' AND SAILORS' CIVIL RELIEF ACT

Soldiers' and Sailors' Civil Relief Act of 1940 as Applied in Support Litigation: A Support Enforcement Attorney's Perspective, The, by *MAJ Stephen R. Hooper*, Vol. 112, at 93.

SPEEDY TRIAL

Rule for Courts-Martial 707: The 1984 Manual for Courts-Martial Speedy Trial Rule, by *MAJ Chris G. Wittmayer*, Vol. 116, at 221.

STANDING OPERATING PROCEDURE (SOP)

Developing a Legal Assistance SOP, by *MAJ Mark E. Sullivan*, Vol. 112, at 249.

STRATEGIC DEFENSE INITIATIVE (SDI)

International Legal Implications of the Strategic Defense Initiative, by *MAJ John E. Parkerson, Jr.*, Vol. 116, at 67.

SUMMARY COURTS

Summary Courts and the Disposition of Deceased Soldiers' Effects, by *CPT L. D. Jentzer*, Vol. 112, at 185.

SUPPORT

Practical Considerations in Handling Army Nonsupport Cases, by *MAJ Charles W. Hemingway*, Vol. 112, at 105.

—T—**TAXATION**

Recent Reforms in Divorce Taxation: For Better or For Worse?, by *MAJ Bernard P. Ingold*, Vol. 120, at 203.

TECHNICAL DATA

Trade Secrets and Technical Data Rights in Government Contracts, by *CPT Donna C. Maizel*, Vol. 114, at 225.

TERRORISM

Third Annual Waldemar A. Solf Lecture in International Law: Contemporary Terrorism and the Rule of Law, The, by *Honorable Louis G. Fields, Jr.*, Vol. 113, at 1.

TESTIMONY

Expert Psychological Testimony on Credibility Issues, by *MAJ Thomas J. Feeney*, Vol. 115, at 121.

Insanity Defense Reform, by *MAJ Rita R. Carroll*, Vol. 114, at 183.

THESIS

Thesis Topics of the 34th Graduate Course, Vol. 113, at vi.

TOBACCO

Handling Tobacco-Related Discrimination Cases in the Federal Government, by *CPT Scott D. Cooper*, Vol. 118, at 143.

TORTS

Informed Consent, Termination of Medical Treatment, and the Federal Tort Claims Act—A New Proposal for the Military Health Care System, by *CPT Stephen E. Deardorff*, Vol. 115, at 1.

Personal Liability of Military Personnel for Actions Taken in the Course of Duty, by *LTC John L. Euler*, Vol. 113, at 137.

United States v. Kubrick: Scope and Application, by *MAJ Carl M. Wagner*, Vol. 120, at 139.

—U—**UNIFORM CODE OF MILITARY JUSTICE**

Rights Warnings in the Military: An Article 31(b) Update, by *CPT John R. Morris*, Vol. 115, at 261.

UNITED STATES MILITARY ACADEMY

USMA Honor System—A Due Process Hybrid, The, by MAJ John H. Beasley, Vol. 118, at 187.

—W—**WAR CRIMES**

Comment—The Years of MacArthur, Volume III: MacArthur Unjustifiably Accused of Meting Out "Victors' Justice" in War Crimes Cases, by COL Frederick Bernays Wiener, Vol. 113, at 203.

WARTIME

Legal Services During War, by COL Ted B. Borek, Vol. 120, at 19.

WASTE

Disposition of the Current Stockpile of Chemical Munitions and Agents, The, by MAJ Lawrence E. Rouse, Vol. 121, at 17.

WEAPONS

Disposition of the Current Stockpile of Chemical Munitions and Agents, The, by MAJ Lawrence E. Rouse, Vol. 121, at 17.

WEST POINT

USMA Honor System—A Due Process Hybrid, The, by MAJ John H. Beasley, Vol. 118, at 187.

WILLS

Computer-Assisted Wills Program, by CPT James J. Gildea, Vol. 112, at 227.

Non-Probate and Probate Administration of Small Estates Involving Deaths of Military Personnel: Thoughts of a Probate Judge, by CPT Richard M. Morton, Vol. 112, at 175.

WITNESSES

Confrontation and Residual Hearsay: A Critical Examination, and a Proposal for Military Courts, by CPT John L. Ross, Vol. 118, at 31.

Expert Psychological Testimony on Credibility Issues, by MAJ Thomas J. Feeney, Vol. 115, at 121.

WRITING

Plain English for Army Lawyers, by Thomas W. Taylor, Vol. 118, at 217.

Professional Writing Award for 1985, Vol. 113, at vi.

Professional Writing Award for 1986, Vol. 118, at v.

Thesis Topics of the 34th Graduate Course, Vol. 113, at vi.

By Order of the Secretary of the Army:

CARL E. VUONO

General, United States Army

Chief of Staff

Official:

R. L. DILWORTH

Brigadier General, United States Army

The Adjutant General

U.S. GOVERNMENT PRINTING OFFICE: 1985-181-047-60001



